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Logic

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L O G I C

MADE

FAMILIAR and EASY:

To which is added,

A COMPENDIOUS SYSTEM
O F

Metaphysics or Ontology.

BEING THE
FIFTH VOLUME
O F THE

Circle of the Sciences, &c.

Published by the King's Authority.

The FIFTH EDITION.

L O N D O N:

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M D C C L X X X I X.

To the RICHT HONOURABLE the
MARQUIS OF TAVISTOCK,
SON OF HIS GRACE THE
DUKE OF BEDFORD,
THIS
A R T OF LOGIC

IS HUMBLY INSCRIBED,

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L

P R E F A C E.

WE flatter ourselves that the following
 little Treatise, wherein the Rudiments of the Science are laid down in the
 plainest Manner possible, may be of some
 Service to the British Youth, as it will
 diffuse a Light over their Understanding,
 assist their Reasoning Powers, and lead
 them on to such Improvements in Know-
 ledge as are to be expected from Years of
 Maturity.

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Logic indeed, as formerly taught by the Schoolmen, was of little Use but to furnish the Tongue with Debate and Controversy: and therefore many People have entertained such a Prejudice against it, as to think this useful Art unworthy of their Notice, much less of the Study and Application it requires. But as a modern Logician (to whose excellent Writings we own ourselves indebted) observes, "True Logic is not that noisy Thing that deals all in Dispute and Wrangling, to which former Ages had debased and confined it; yet its Disciples must acknowledge also, that they are taught to vindicate and defend the Truth, as well as to search it out. True Logic doth not require a long Detail of hard Words to amuse Mankind, and to puff up the Mind with empty Sounds, and a Pride of

“ false Learning ; yet some Distinctions and Terms of Art are necessary to range every Idea in its proper Class, and to keep our Thoughts from Confusion. The World is now grown so wise as not to suffer this valuable Art to be engrossed by the Schools. In so polite and knowing an Age every Man of Reason will covet some Acquaintance with *Logic*, since it renders its daily Service to *Wisdom* and *Virtue*, and to the Affairs of common Life, as well as to the Sciences.”

To enforce this Master a little farther, let it be considered, that *REASON* is the Glory of Human Nature, a *Gift* which the wise Creator has bestowed upon all Mankind ; though all are not favour'd with it by Nature in an equal Degree : But the acquired Improvements of it in different Men make a much greater

Distinction between them than Nature has made. Nay, we may venture to affirm, (as the judicious Author just quoted observes) that the Improvement of this noble Faculty has “ raised the Learned and the Prudent in the European World almost as much above the Hottentots and other Savages of Africa, as those Savages are by Nature superior to the Birds, the Beasts, and the Fishes.”

Now to teach us the right Use of our Reason, or Intellectual Powers, and the Improvement of them in ourselves and others, is the Business and the End of Logic: And it is by proper Cultivation of our Reason that we are better enabled to distinguish Good from Evil, as well as Truth from Falshood; both which Things are of the greatest Concern and Importance, whether we regard our Happiness or the Happiness of Mankind.

Happiness in this Life, or our eternal Happiness hereafter.

I believe it will not be disputed, that the Pursuit and Acquisition of Truth is of infinite Importance to Mankind. By this we become acquainted with the Nature of Things, and their various Relations to each other: By this we discover our Duty to God, and to our Fellow-Creatures: By this we arrive at the Knowledge of Natural Religion, and learn to confirm our Faith in Divine Revelation. In a Word, our Wisdom, Prudence and Piety, our present Conduct and our future Hope, are all influenced (in some Degree or other) by the Use of our rational Powers in our Enquiries after Truth.

But perhaps it may be asked, Of what Necessity is the Art of Logic? Can not a Man form his Judgments aright, distinguish Truth from Falshood, conduct

duct himself prudently, and arrive at a State of Virtue and Happiness, without understanding all the technical Language and Formality of Rules which Logicians have invented ? Yes, certainly ; It must be acknowledged, that the Share of Common Sense, which Men enjoy as reasonable Beings, generally proves sufficient to conduct them in the ordinary Affairs of Life ; but it is a higher Advancement and a farther Assistance of our rational Powers, that is designed by and expected from Artificial Logic : And a little Consideration will convince any one, that it requires some Skill, arising from Art and Experience, as well as a natural Strength of Understanding, to carry our Enquiries beyond the more obvious Generalities of a Subject, to follow it through all the Intricacies and Objections that may arise, and to clear the Consistency of it in all its Parts. So that let Man's

Strength of Genius be ever so great, if he refuses to make use of that Assistance which is offered him in the Ways of abstruse and close Reasoning, he will infallibly find himself either totally lost, or very much bewildered.

By natural Sagacity a Man frequently perceives that there is something faulty or sophistical in another's Reasoning, but is incapable at the same Time of discovering where the Fault lies. In such Circumstances it must be very desirable to have the Mark pointed out precisely, against which all his Force should be levelled, to have his Thoughts put into such a regular Train as may enable him to unravel the Difficulty, apprehend the true State of the Question, and thoroughly examine and weigh its Consequences. Every one, I believe, who makes any Pretensions to good Sense, will endeavour to form to himself, a rational Method

Method of thinking and arguing; and when once he has attained it, I dare say he will not repent of the Trouble that it cost him.

We acknowledge farther, that in Discourses upon ordinary Matters, we have no Occasion to be at the Pains of continually applying a common Standard, or tying ourselves up to the Strictness of Scholastic Forms, in order to perceive the Agreement or Disagreement of Ideas, and thereby distinguish Truth from Falshood: But yet it will be found of no small Service to learn those general Rules, which are applicable as a Test to all Reasoning, however varied or disguised by the Advantage of Wit or Eloquence.

"SYLLOGISM (says a good Writer on this Subject) is a Measure to us in the Management and Disposal of our own Thoughts, and in our Reasonings and Discourses to others;

“ wherein we cannot otherwise avoid
“ Confusion and Disorder, than by
“ considering what the Conclusion is
“ we would prove, by what Medi-
“ ums we would prove it, and to
“ which Part of the Argument (*Ma-*
“ *ajor, Minor, or Conclusion*) this or that
“ particular Part of our Discourse re-
“ lates. If our Discourse be not al-
“ ways laid out in the exact Forma-
“ lity of Syllogism, yet we should
“ have a Kind of Syllogistical Plan
“ before us, that so in every Stage of
“ our Discourse we may know where-
“ abouts we are, and what we are
“ doing.

“ *Syllogism* moreover will be a Mea-
“ sure whereby to judge of the Dis-
“ courses of others, pointing out what
“ is the Conclusion they offer to
“ prove, what the Premisses are
“ whereby they prove it, and whe-
“ ther

“ ther such Premisses do indeed prove
“ such Conclusion. By reducing it to
“ Syllogism you see all the Parts of
“ an Argument in Miniature, what
“ truly belongs to it, and what is put
“ in only for Show, and Pomp, and
“ Amusement; and every Part in its
“ proper Place and Order, and withal
“ what Connection one Part has with
“ another.”

As Syllogistical Arguments, so likewise Scholastic Distinctions are in many Cases necessary to prevent Confusion, and therefore we should not entirely reject them, or take Offence at them when rightly applied. The Subtilties of Scholastic Learning have indeed of late been very much decried, and not without Reason; but a Man of thoughtful Disposition, Leisure, and mature Judgment, will always find useful Entertainment among the Writings of the more ingenious Schoolmen:

men: *Where, if he does not always acquiesce in their Determination, yet he will find and acknowledge* “ a remarkable Sagacity in canvassing a Question; and though he will sometimes laugh at the Doubts of their Distinctions, and the Mist of Words which they industriously throw over the plainest Subjects, yet he may from thence be apprized how to guard against the same little Subterfuges and Arts of Disguise, which, by Misapplication of Language, are every Day put in Practice in Matters of Civil Commerce and Conversation.”

Having said thus much of the Usefulness of the Art of LOGIC, it remains (in Conformity to the Method observed in the preceding Volumes of this Work) to give some Historical Account of its Origin and Progress in the World.

The

The first Philosophers were so entirely bent on the Study of Nature, as to have little Regard to Logical Speculations. In Pythagoras's School there was no Reasoning but Authority, no Appeal from the Master's Dictates; and though we meet with good Definitions in the Writings of his Followers, yet Logic was then unknown, and its Rules uncultivated. Zeno Eleates was the first who found out the natural Train of Principles and Consequences in a Discourse which he formed into a regular Art; so that the Sum of his Logic was to observe the Dependence and Connection that Propositions bear to each other, and accordingly to range them in their natural Order. He made use of Dialogue, introducing two or more Persons, who by a Course of Questions and Answers reason'd methodically upon all Subjects; and hence he gave his new-

new-invented Art the Name of Dialectica, which Logic retain'd after the Form of Dialogue was laid aside. But Zeno, being a great Master of Subtlety, too much perplex'd and embarrass'd this Method; and Protagoras, his Scholar, refined upon it, and carried it farther into Sophistry.

Euclid of Megara, applied himself to the improving of the Subtleties of Logic, and introduced a more lively and vehement Manner of Debate; which he carried to such an Extreme, that he was reproached as having possessed the People of Megara with a Madness of Disputing, by teaching them that sophistical Method which Socrates condemned. It was this Euclid and his Scholar Eubulides that invented those Sophisms, which were afterwards so much celebrated in the Schools, though in reality they bore nothing in them but

their Acuteness, first the Sorites the Dilemma, &c.) together with all that Chicane of Dispute which brought Logic into Contempt at Athens, and obliged Socrates to expose and ridicule it, in order to undeceive the People.

Notwithstanding what we have said of Zeno, Cicero makes Socrates the Author of Logic, which he says he fetched from Heaven for the Benefit of Mankind. In effect, this Philosopher made a System of all the Precepts of the Art, and demonstrated the Use and true Practice of them in his familiar Conversation. He wrote nothing; but Plato has preserved the Logic of his Master, which has nothing peculiar as to the disputative Part of which Socrates had but a very mean Opinion. Of the Socratic Method of disputing we have given Examples in the following Treatise; but it has been observed,

that

that Socrates in his Reasoning applied himself more to Questions than Answers, because the Character of his Genius was fitter to raise Doubts than to resolve them.

Till we come to Aristotle, we meet with nothing fix'd and regular in Logic. It was this great Genius that first discovered the Way of arriving at Science by the Evidence of Demonstration, and of proceeding to such Demonstration, in a geometrical Method, by the conclusive Form, the infallible Rule of SYLLOGISM. In the Composition of Syllogisms (be observes) there must be nothing false in the Matter, nothing vicious in the Form; and the Rules he has laid down concerning them have been allowed by the Learned to be just and solid, and agreeable to the natural Course of Reason. It is true, the chief Aim and Scope of Aristotle's

Logic is not so much to teach Men the Art of true Reasoning, as to enable them to bring false Arguments to a proper Trial and Scrutiny, and to guard against the Sophisms which were then in Vogue, and which he employs his Art to detect and defeat.

The Stoicks refined more upon Logic than all the other Sects of Philosophers; and seemed to have armed themselves with all its Thorns, and commenced the most formidable Wranglers of the Schools, to support their vain and extravagant Notions. To this Purpose they invented new Modes of Syllogism, less natural than those of Aristotle, but more cunning and captious. They pretend, that Chrysippus himself, one of their Sect, wrote no less than three hundred Volumes upon the Art of Logic; but his Refinements, (as Seneca has observed) only tended to break

break and enervate its manly Spirit. Thus their Logic became slight and superficial, being little more than a Dispute about Names and their Signification; and this laid the first Foundation of that Philosophy which was revived by the Nominalists many Ages after. However, Aristotle's Works being concealed from the Public, the Logic of Zeno remained a long Time chiefly in Fugue, and was one of the first that was taught at Rome; the Subtilties whereof Plautus has humorously exposed in his Comedies, and Cicero in many Places of his Works.

Epicurus's Method of Reasoning, who did not approve of the Niceties and Quibbles of the Stoics, was less artificial than that of Zeno, and carried on with greater Simplicity. He knew nothing of the analytical Method of Division and of Argumentation, which

indeed rendered him weak and little in Disputes. In searching after Truth he proceeded only by the Senses, which he term'd the first and natural Light of Mankind, as *Reflection* upon the Judgment of Sense was his second. The Simplicity of his Logic, was in a good Measure owing to the Clearness of his Terms; he being of Opinion, (and Experience shews it to be true) that the common Source of Dispute is the Ambiguity of Propositions. Thus he resolved all Fallacies and Sopbisms by the bare Explication of the Words; concluding, that if Men are not quite stupid, they must needs agree in their Sentiments, when once they understand each other's Meaning. In a Word, a Soundness and Simplicity of Sense, assisted with some natural Reflection, was all the Logic, of Epicurus who

was not very curious about Modes and Forms.

When the Writings of Aristotle, which had lain hid for many Ages, were once discovered, his Method of Reasoning was generally followed, as the most solid and certain, and in its highest Perfection, by the Invention of Syllogism. Galen, who had form'd some different Notions of Logic, at length acquiesced in that of Aristotle, and contributed much to spread its Reputation. Simplicius, Ammonius, and others among the Greeks; St. Austin, Boethius, Thomas Aquinas, and many more of the Latins, (not to mention the Arabians) studied Aristotle's Logic, as their Pattern and Original. On this Model the Schoolmen formed their Character, who (to the Shame of Reason) reign'd with too long and too absolute a Despot; but though they fell

v P R E F A C E

a Division of Nominalists and
Aristotelians, yet both Parties proceeded upon
Aristotle's Principles in their Debates.

Laurentius Valla undertook to reforme
Aristotelian Logic, by reducing the
number of Predicaments to Three, and by
striking off the third Figure of Syllo-
gism; but his Enterprize did not suc-
ceed. Ludovicus Vives attempted ano-
ther Sort of Reformation, (chiefly with
respect to the Schoolmen) but with no
greater Success. And as for Peter Ramus,
he laid down the Plan of a new
Logic, he has rather spoiled than amend-
ed what he has borrowed from Aristotle.
Andan composed a Logic from the Stock
of his Predecessors, which has little va-
lue in it but Aristotle's geometrical
method.

Smiglesius, a Jesuit, is one of the
best that has written on Aristotle's Lo-
gic, which he has done with a great
deal of care.

deal of Justice and Clearness: But Van Helmont in a Logical Treatise has extravagantly pretended to overthrow the System of Aristotle, without any Ground to support his own. Descartes began a Logic, which he left unfinished; and which his Followers have endeavoured to illustrate and improve. M. Rapin reckons him the best Nationalist among the Moderns, whatever he delivers being well conceived, and discovering that Depth of Meditation which was his peculiar Excellence. According to the same Critic, " of the modern Treatises of Logic, " the most accomplished of all its " Parts is that which Peter Mounier, " a Physician of Grenoble, has published in the Works of Honoratus " Faber the Jesuit. What he has " written on the Art of Syllogism " and Consequence, which is his main " Bu-

“ Business, is an original in its Kind:
“ No Man has ever carried these
“ Speculations farther, or has more
“ exhausted the Matter, by reciting
“ the almost infinite Modes and Con-
“ nections of the Syllogistic Terms.”

To him therefore, and other Writers of
the same Kind, we refer those who are
desirous of being acquainted with such
Speculations in their utmost Extent. As
for our Parts, our Design being calcu-
lated for the Instruction of Youth, and
to introduce them to an Acquaintance
with the Art of Logic, as it is now
taught amongst us, freed from the Ob-
scurity which covered it for many Ages,
we have chiefly followed the Steps of
our learned Countryman Dr. Watts;
whose Treatise on this Subject seemed best
suited to our Purpose, and which has
deservedly met with universal Appreba-
tion.

Before

Before we conclude this Preface, we must say something concerning METAPHYSICS or ONTOLOGY, a brief Scheme of which we thought no improper Addition in the Art of Logic. The Object of this Science is BEING in general; but the greatest Part of those who have handled the Subject seem to have confined it to Speculations about Substances purely Spiritual, such as the Soul of Man, Angels, and GOD himself; for which Reason Aristotle terms it Natural Divinity.

This Philosopher seems to have been the first Founder and Inventor of the abstracted Method of Reasoning used in Metaphysics, and the Consideration of immaterial Beings; for his Predecessors in Philosophy delivered scarce any Thing that was just and solid on these Subjects. Pythagoras indeed is said to have learnt

learnt the Unity of the Godhead from the Hebrews, when he travelled into Egypt, and so became taught up to the Greeks; but he likewise borrowed all the mysterious and visionary Nations of the Egyptians relating to Spirits and Intelligences, which they supposed were invested with fine and subtle Bodies; Plato took this Doctrine from Pythagoras, and Zeno afterwards transcribed it from Plato. Apuleius indeed says, that nobody has spoken better concerning Spirits and Divine Matters, than Plato and his Followers; But Heathen Antiquity affords nothing on this Subject, composed with so much Strength of Reason as Cicero's Books of the Nature of the Gods. The Writings of the latter Platonists under the Roman Emperors on the Subject of Metaphysics, are weak and inaccurate: Nor are the Greek Fathers very exact in their Dis-

Discourses on Angels and Spirits, on Account of the false Notions, which many of them brought out of Plat's School. However, the Being of a God, the Immortality of the Soul, the Existence of good and evil Angels, and other important Truths of Religion, have been so fully revealed, and placed in so clear a Light, under the Christian Institution, as leaves no Room to entertain a Doubt concerning them.—But we are rambling a little from what relates to our present Purpose, and it is Time to return.

Many and large Volumes have been written on the Subject of Metaphysics; and a whole Tribe of Commentators have employed their Pens upon Aristotle's Metaphysics in particular, which were taught and admired in the Schools for many Ages, though his most zealous Defenders allow them to be the most

most imperfect of all his Works. But this Science (as well as Logic) was brought into Contempt by the vast Multitude of rude and barbarous Terms, of obscure and perplexed Definitions, of dry and barren Conceptions, and Reasonings, with which the Schoolmen, had embarrassed it, but from which it has been rescued by modern Writers on the Subject, and therefore should not be entirely thrown aside as of no manner of Use or Signification. Our Ontology is only a short Sketch of the Science; but we thought our Logic would not be compleat without it, as they are nearly related and even connected with each other. To reduce the Reader to the Study of Ontology, we shall give him the Sentiments of Dr. Watts on this Head, with which we shall conclude our Preface,

" In

“ In order (*says he*) to make due
“ Enquiries into all the Particulars
“ which go towards the *compleat* and
“ *comprehensive* Idea of any Being,
“ the Science of *Ontology* is exceed-
“ ing necessary. This is what was
“ wont to be called the *first Part of*
“ *Metaphysics* in the *Peripatetic Schools*.
“ It treats of *Being* in its most general
“ *Nature*, and of all its *Affections* and
“ *Relations*. I confess the old *Popish*
“ *Schoolmen* have mingled a Number
“ of useful Subtilties with this Sci-
“ ence; they have exhausted their
“ own Spirits, and the Spirits of their
“ Readers, in many laborious and
“ intricate Trifles, and some of their
“ Writings have been fruitful of
“ *Names without Ideas*, which have
“ done much Injury to the sacred
“ Study of Divinity. Upon this
“ Ac-

“ Account many of the Moderns
“ have most unjustly abandoned the
“ whole Science at once, and thrown
“ Abundance of Contempt and Rail-
“ lery upon the very Name of Me-
“ T A P H Y S I C S : But this Contempt
“ and Censure is very unreasonable ;
“ for this Science, separated from
“ some *Aristotelian* Fooleries and
“ *scholastic* Subtilties, is so necessary
“ to a distinct Conception, solid
“ Judgment and just Reasoning on
“ many Subjects, that sometimes it is
“ introduced as a *Part of Logic*, and
“ not without Reason. And those,
“ who utterly despise and ridicule it
“ either betray their own Ignorance,
“ or will be supposed to make their
“ Wit and Banter, a Refuge and Ex-
“ cuse for their own Laziness. Yet
“ thus much I would add, that the
“ later

" later Writers of *Ontology* are gene-
" rally the best on this Account, be-
" cause they have left out much of
" the ancient *Jargon*."

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LOGIC.

INTRODUCTION.

Of Logic, and its Parts.

Q. **W**HAT is Logic?

A. It is the Art of Thinking and Reasoning justly, or of making a right Use of the Faculties of the Mind in our Enquiries after Truth, and the Communication of it to others.

Q. Whence is the Term derived?

A. From the Greek Word *Logos*, Discourse.

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Q. Intro

Q. Into how many Parts is *Logic* divided?

A. Into four, because so many *Faculties* or *Operations* of the Mind are more immediately concerned therein.

Q. Which are those?

A. *Perception*, *Judgment*, *Reasoning*, and *Disposition*; each of which shall be treated of in Order.

PART

P A R T I.

Of PERCEPTION.

Q. **W**HAT is Perception?
 A. *Perception, Conception, or Apprehension*, is that *Act* (or rather *Passion*) of the Mind whereby it becomes *conscious* of any Thing, or forms an *Idea* of the Objects set before it.

Q. What is treated of in this first Part of *Logic* which is grounded on *Perception*?

A. The first Part of *Logic* treats of all Sorts of *Ideas*.

C H A P.

C H A P. L

Of the Nature of Ideas in general.

Q. WHAT is an Idea?

A. A *Notion, Image, or Representation* of any Thing, as conceived by the Mind.—Thus, for Instance, if we think of a *Horse*, a *Pigeon*, or any other Object; the *Notion or Image* thereof, which is formed in the Mind, is called the *Idea of a Horse, a Pigeon, &c.*

Q. Whence is the Term *Idea* derived?

A. From the Greek Word *eido*, to *see*; because the Mind perceives, and *sees*, as it were, within itself the Object about which it is employed.

Q. How do we come by our Ideas?

A. The Mind gains all its Ideas either from *Sensation* or *Reflection*; that is,

is, either by means of the *Senses*, or by reflecting on its own Operations, and observing what passes within itself. Thus, for Instance, by *Seeing*, we obtain the ideas of *Colours*; by *Hearing* we have those of *Sound*; by *Tasting* we get those of *Bitter*, *Sweet*, *Sour*, &c. And from the latter Source, i. e. from turning our Thoughts inward upon the *Actions* of our own *Souls*, arise the Ideas of *Affent*, *Dissent*, *Judging*, *Reason*, *Understanding*, *Will*, &c. But of the Origin of our Ideas we shall say more hereafter.

C H A P. II.

Of the Objects of Perception.

Q. *W***H***A***T** is an *Object* of *Perception*?

A. *I*t is that which is *represented* in the

the *Idea* ; that which is the *Archetype* or *Pattern*, according to which the Idea is formed.

Q. Have these Objects no other Name ?

A. Yes ; all Objects of our Ideas are called *Themes*, whether they are *Entities* or *Non-entities*, that is, *Beings* or *Not-beings* ; for Non-existence may be proposed to our Minds, as well as real Existence or Being.

Q. How is *Being* usually considered ?

A. *Being* is generally considered under the Distinction of *Substance* and *Mode*.

Q. What is a *SUBSTANCE* ?

A. It is *Being* which *subsists by itself* ; that is, has an *Existence of its own*, a *separate Existence*, independent of any other created Being.

Q. What do you mean by this *Independence* ?

A. All

A. All that I mean is, that a Substance cannot be *annihilated*, or utterly destroyed and reduced to Nothing, by any Power inferior to that of its Creator; though its particular *Form*, *Nature*, and *Properties* may be altered and destroyed by many inferior Causes. Thus, for Example, *Wood* may be turned into *Fire*, *Smoke*, and *Ashes*; a *House* into *Rubbish*, and *Water* into *Ice*, and *Vapour*; but the Substance or Matter of which they are made still remains, tho' the Forms and Shapes of it are very much altered. Let a Substance undergo as many Changes as you please, yet still it is a Substance; and in this Sense it depends upon God alone for its Existence.

Q. How many Kinds of Substances are there?

A. They may be all comprehended, in the general Division of *spiritual* and *corporeal*; that is, what we commonly

ly understand by the Words *Body* and *Spirit*.

Q. But are Substances no otherwise distinguished?

A. Yes; they are distinguished into *Simple* and *Compound*, *Pure* and *Mixed*, *Animate* and *Inanimate*.

Q. What are *Simple* Substances?

A. Those which have no Mixture or Composition in them of different Natures. Such are either *Spirit*, and in this Sense God is called a *Simple Being*; or the *Elements* of natural Bodies; that is, those *first Principles* or *Corpuscles* of which all Bodies do originally consist.

Q. What is meant by *Compound* Substances?

A. Such as are made up of two or more simple ones. So every Thing in the whole material Creation, that can by the Art of Man be resolved into

into different Substances, is a *Compound Body* in a *philosophical Sense*.

Q. Are the Words *Simple* and *Compound* used in any other Sense?

A. Yes; in a *vulgar Sense* a *Needle* is called a *Simple Body*, being made only of *Steel*; but a *Sword* or a *Knife* is a *Compound*, because its *Haft* or *Handle* is made of Materials different from the *Blade*.

Q. What do you mean by *Pure* and *Mixed Substances*?

A. These Terms, when applied to Bodies, are somewhat akin to *Simple* and *Compound*. So *Gold* is said to be *pure*, if it has no *Alloy*, no *Mixture* of other *Metal* in it. But if any other *Mineral* or *Metal* be mingled with it, it is called a *mixed Body* or *Substance*.

Q. What is understood by *Animate Substances*?

A. Such as are endowed with *Life* and

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and Sense; as all Sorts of *Animals*, viz., *Men*, *Beasts*, *Birds*, *Fishes*, &c.—*Vegetables* are also reckoned amongst animated Substances, (having within them a *Principle of Life* (as it may be called) whereby they grow, increase, and produce their Species, though void of Sensation. Such are *Trees*, *Herbs*, *Plants*, &c.

Q. What is meant by *Immaterial Substances*? *Answer* by Dr. J. W. D.

A. Those which have no Life nor Sense; as, Earth, Air, Water, &c.

"Q. I am satisfied as to substance;
but what do you understand by a
Mode? (See also *Mode*.)

A. A *Mode* (or *Manner*) of Being, is that, which "cannot subsist it self, as a Substance does, but it belongs to and subsists by the Help of some Substance; which, for that Reason, is called its *Subject*.—In other Words,

A *Mode* has no Existence of its own, but depends on some Substance for its very Being.

Q. In what Manner does *Mode* depend on *Substance* ?

A. Not as a Being depends on its *Cause*, (for so *Substances* themselves depend on *God* their Creator) but a *Mode* must necessarily exist in some *Substance*, or it cannot exist at all.— Thus *Shape* is a *Mode* of *Body*, and cannot subsist without it ; as *Knowledge* is a *Mode* of the *Mind*, on which it is equally dependent : For were there no *Body* or *Matter*, there could be no *Shape* ; and were there no *Mind* or *Spirit*, there could be no such Thing as *Knowledge*.

Q. Can't you give one familiar Instance, to explain the Difference between *Mode* and *Substance* ?

A. Yes ; if we reflect on a round

D 2 Piece

Piece of *Wax*, it is plain the *Wax* is a Thing which may subsist without that *Roundness*: Make it *square*, *triangular*, alter its figure ever so much, yet still it is *Wax*; and for this Reason it is called a *Substance*. On the contrary, the *Roundness* is so dependent on the *Wax*, that it cannot subsist without it, or some other *Substance*; for we cannot conceive of *Roundness* distinct and separate from a *round Body*. And this is what we denominate a *Mode*.

Q. Are *Modes* called by no other Name?

A. Yes; sometimes they are called *Qualities*, *Attributes*, *Properties*, and *Accidents*.

Q. Have not *Modes* their several Divisions, as well as *Substances*?

A. Yes; they are distinguished into various Kinds, as *Essential* and *Accidental*

ental, Absolute and Relative, Intrinsic and Extrinsic, and several others.

Q. *What is an Essential Mode?*

A. *That which belongs to the very Nature or Essence of its Subject; as Solidity in Matter, Thinking in a Spirit, &c.—Of essential Modes some are called primary, as Roundness in a Globe; others secondary, as Volubility or Aptness to roll, which is consequent upon the former. The first is called the Difference, being the distinguishing Attribute of a Globe; and the latter is termed a Property.*

Q. *What is an Accidental Mode?*

A. *That which is not necessary to the Being of a Thing, but may be wanting, and yet the Nature of the Subject remain the same; as Smoothness or Roughness, Blackness or Whiteness, Motion or Rest, in a Globe or Bowl; for these may be all changed, and yet the Body remains a Globe still. Such Modes as*

these (and no others) are properly called *Accidents* of Bodies.

Q. What is meant by *Absolute* and *Relative* Modes?

A. An *Absolute* Mode is that which belongs to its Subject, without respect to any other Being whatsoever: But a *relative* Mode arises from the Comparison of one Body with another. Thus *Motion* is an *absolute* Mode of a Body; for I can consider a Body as in Motion, without comparing it to any Thing else in the whole Creation: But *Swift*ness and *Slow*ness are *relative* Modes, the Ideas whereof are produced by comparing the Motion of one Body with that of others; as the Motion of a Bowl on a Bowling-Green is *Swift*, when compared with a *Sail*; and it is *slow*, when compared with a *Cannon Ball*.—So also *Size* is an *absolute* Mode of a Body; but *Great*ness and *Small*ness are *relative* Ideas.

Q. What is an *Intrinsic Mode*?

A. Such as we conceive to be in the Subject or Substance itself; as when we say, a Globe is round, in Motion or at Rest, or when we call a Man tall, or learned.

Q. What is an *Extrinsic Mode*?

A. That which is not in the Subject itself, but derived from something external or foreign to it; as when we say a Thing is desired, loved, hated, &c. So if I say, That Post stands within a Yard of the Wall, I express a Mode of Manner of Being which is not in the Post itself, but which it derives from its Situation with respect to the Wall.

Q. Which are the other Divisions of Modes?

A. The Division of Modes into *Adherent* or *Adherent*, *Proper* or *Improper*, is so much akin to the last, that it does not deserve to be explained by Examples.

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Q. Are

Q. Are there any others that are worth taking Notice of?

A. Yes; it is proper to observe, that *Action* and *Passion* are reckoned among the *Modes of Being*. By *Passion* is here meant *suffering* or *bearing*. *Action* is and what *suffers* is called the *Patient*, as that which *acts* is termed the *Agent*.—Thus, when a Smith with a Hammer strikes a Piece of Iron, the Hammer and Smith are both *Agents*; and the Iron is the *Patient*, because it *suffers* or receives the Blows of the Hammer, as directed by the Hand of the Workman.

Q. Have you any more to add?

A. Yes; Modes are further divided into *Natural* and *Supernatural*, *Civil* and *Moral*; &c. If I say, *The people of Palestine are Men of low Sentence*, that he was inspired; here his knowledge of *Shakspeare* is a *Natural* Mode, and his

being inspired is *supernatural*.—Thus again, if I say that such a one is an *boldfaced Man* and a *free Citizen*; here are two *Modes*, the one arising from his *Honesty*, which is a *moral Consideration*; the other from his being *free of a City*, which is a *civil Privilege*.

Q. Is this all you have to say concerning *Modes*?

A. No; I would have you observe, that though the greatest Part of Modes belong to *Substances*, yet there are some which are only *Modes of other Modes*: For though they subsist in and by a *Substance* as the original *Subject* of them, they are properly and directly attributed to some *Mode* of that *Substance*. Thus *Motion* is the *Mode* of a *Body*, but *Swiftness* and *Slowness* are *Modes of Motion*: And if I say a *Man walks gracefully*, it is plain that *Motion*

Motion is his *Mode* at that Time; but *Walking* is a particular *Mode* or *Manner* of *Motion*, and *gracefully* is still a *further Mode of Walking*.

Q. You have given me a large Account of *Being* or *Substance*, and its various Kinds of *Modes*; but how do you explain the Nature of *Non-being*, or *Non-entity*?

A. *Non-being* will fall under a three-fold Consideration, as it relates either to *Modes* or *Substance*.

Q. How is it to be considered with respect to *Substance*?

A. We may consider *Non-entity* as excluding *Substance*, and consequently all *Modes*; and this is called *pure Nibbity, or Nothing*.

Q. How is it considered with respect to *Modes*?

A. When there is a *Nonentity* of *Modes* only, it is considered either as a mere *Negation*, or as a *Privation*.

Q. What is meant by these Terms?

A. By *Negation* we mean the Absence of that which does not naturally belong to the Subject; as the Want of *Sight* in a *Stone*, or of *Learning* in a *Fisherman*: But the Want of *Sight* in a *Man*, to whom it naturally belongs, or of *Learning* in a *Physician* or a *Divine*, who ought not to be without it, is called a *Predication*. So the *Sinfulness* of any human Action is said to be a *Predication*, as it consists in a *Want* of Conformity to the Law of God.

CHAP. III.

Of the Several Sorts of Ideas.

Q. **H**OW many Kinds of Ideas are there?

A. *Ideas* may be considered according to their *Original*, their *Nature*, their

their *Objects*, and their *Qualities*: And this fourfold Division will easily comprise them all.

Q. How are we to consider them with respect to their *ORIGINAL*?

A. It has been the Subject of a great Controversy, *Whether any of our Ideas be innate or no*, that is, *born with us*, and *naturally* belonging to our Minds. This is, positively asserted by some, but utterly denied by Mr. *Locke*, who (in my Opinion) has sufficiently shewn, that all our Ideas are derived from *Sensation* and *Reflection*; of which I have said something already. — But, without entering into this Debate, I think our Ideas, with regard to their Original, may be divided into three Sorts, viz. *Sensible*, *Spiritual* and *Abstracted*.

Q. What do you mean by *Sensible Ideas*?

A. By

A. By *sensible* or *corporeal* Ideas I mean those which are derived originally from our *Senses*: Such are the Ideas of *Colours*, *Sounds*, *Tastes*, *Shapes*, *Motions*, &c.

Q. What do you understand by *Spiritual Ideas*?

A. The Word *spiritual* is here used in a *natural*, not in a *religious* Sense; and signifies the same as *mental* or *intellectual*. These Ideas we gain by reflecting on the Nature and Actions of our own Souls, by meditating, contemplating, and observing what passes within ourselves. Such are the Ideas of *Thought*, *Knowledge*, *Judgment*, *Reason*, *Love*, *Fear*, *Hope*, &c.

Q. What are *Abstracted Ideas*?

A. These are framed by that Operation of the Mind which we usually call *Abstraction*, whereby we separate *some Parts of an Idea from other Parts of it*, or consider a Thing *simply in it-*

self, without respect to the Subject wherein it resides. — Thus, if we consider *Magnitude* or *Humanity* in themselves, or without being attached to any particular *Body* or *Person*, these are called *abstracted Ideas*. *Whiteness* is an *abstracted Idea*, when considered in general, and not as residing in *Chalk*, *Snow*, *Milk*, or any particular Subject whatsoever. Of the same Nature are our Ideas of *Cause*, *Effect*, *Likeness*, *Unlikeness*, *Identity*, *Contrariety*, and innumerable others. Some indeed have contested the Reality of any such Ideas as those we are speaking of; but to me the Distinction seems to be sufficiently warranted: However, I am apt to think, that upon a strict Examination even our most *abstracted Ideas* will be found to owe their Original to *Sensation* or *Reflection*.

Q. How

Q. How are Ideas distinguished with regard to their NATURE?

A. Into Simple and Complex, Compound and Collective.

Q. What is a Simple Idea?

A. It is one uniform Idea, which the Mind cannot distinguish into two or more; such as the Idea of *Cold*, *Heat*, *Red*, *Blue*, *Bitter*, *Sweet*, *Motion*, *Rest*, *Thought*, *Will*, &c. for in these, and others of the like Nature, our most subtle Penetration cannot discover any Parts or Plurality.

Q. What is a Complex Idea?

A. One that is framed by joining two or more simple Ideas together; as those of a *Square*, a *Triangle*, a *Man*, a *Horse*, a *Tree*, &c. which, though often considered as single and distinct Things, yet, as they are evidently composed of several Parts, may be divided by the Mind into several Ideas.

Q. What

Q. What is a *Compound* Idea?

A. That which contains several Ideas of a *different Kind*, whether *simple* or *complex*. Such is the Idea of *Man*, as compounded of Body and Spirit; of an *Electuary*, or other Medicine, compounded of different Ingredients; and of *Harmony*, which is made up of different Sounds united.

Q. What is a *Collective* Idea.

A. That which joins together many Ideas of the *same Kind*, and considers them in one View. Such is the Idea of an *Army*, which is a Collection of Men; of a *Town*, which is a Collection of Houses; of a *Nosegay*, which is a Collection of Flowers; of a *Grove*, which is a Collection of Trees, &c. But this Distinction between *compound* and *collective* Ideas is not accurately observed, the former Epithet being frequently used instead of the latter.

Q. How

Q. How are Ideas distinguished according to their Objects?

A. Into *Particular* and *Universal*, *Real* and *Imaginary*.

Q. What is a *Particular* Idea?

A. That which represents *one Object* only; and this either *indeterminately*, as when we say *some Man, any Man, one Woman, another Woman, some Horse, another City, &c.* or else in a *determinate Manner*, as *William the Conqueror, this Field, that River, the City of London, &c.* These Ideas, representing one particular determinate Thing, are also called *Singular Ideas*, whether they be simple, complex, or compound: And the Object of a particular Idea, as well, as the Idea itself, is sometimes termed an *Individual*.

Q. What is an *Universal* Idea?

A. That which represents a *common Nature* agreeing to many *particular E* Things.

Things. Thus a *Man*, a *Tree*, a *Horse*, are called *universal Ideas*, because they agree with all Men, Trees, and Horses.

Q. Are not *universal Ideas* distinguished into two Sorts?

A. Yes; into *General* and *Special*,

—A *general Idea*, or *Genus*, is one *common Nature* which includes several others. Thus *Animal* is a *Genus*, because it includes *Man*, *Horse*, *Elephant*, *Fly*, &c. which are also *common Natures*: And *Bird* is a *Genus*, as comprehending *Eagle*, *Crow*, *Sparrow*, *Lark*, &c.—A *Special Idea*, or *Species*, is one *common Nature* agreeing to several *Individuals*. Thus *Man* is a *Species*, as agreeing to *William*, *Peter*, *John*, &c. and *City* is a *Species*, as agreeing to *London*, *Paris*, *Constantinople*, &c.—Hence it is easy to observe, that the same *Idea* may be some-

sometimes a *Genus*, and sometimes a *Species*; for *Bird* is a *Genus* if compared with *Eagle*, *Crow*, &c. but a *Species* with respect to *Animal*; and *Animal* is a *Species* with respect to *Substance*.

Q. What is meant by *Real Ideas*?

A. They are such as have *real Objects*, which either do or may exist, according to the present State and Nature of Things; of which it is needless to give any Examples.

Q. What is meant by *Imaginary Ideas*?

A. They are Ideas of Objects which never did nor ever will exist, according to the present Course of Nature. Such are those of a *Flying Horse*, a *Satyr*, a *Bee as big as an Elephant*, &c. These Ideas are also called *fantastical* or *Chimerical*.

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Q. How

Q. How are Ideas distinguished with respect to their **QUALITIES**?

A. Into *Clear* or *Distinct*, and *Obscure* or *Confused*, into *Vulgar* and *Learned*; into *Perfect* and *Imperfect*; and into *True* and *False*.

Q. What is a *Clear* or *Distinct* Idea?

A. That which fully represents the Object to the Mind, so as plainly to distinguish it from every other Object.

Q. What is an *Obscure* or *Confused* Idea?

A. That which represents the Object either faintly, or so confounded and mingled with others, that it does not appear plain and distinct to the Mind. Thus when we view the Rainbow, we have a *clear* and *distinct* Idea of the Red, the Blue, and the Green, in the *Middle* of their several Arches; but the *Borders* of these Colours so

run

run into one another, that the Eye cannot well distinguish them, and therefore our Ideas are *obscure* and *confused*.

Q. What is meant by *Vulgar* and *Learned Ideas* ?

A. *Vulgar* Ideas represent Objects according to their most obvious and sensible Appearances : But *Learned Ideas* are framed by considering the Nature, Properties, Causes, and Effects of Things. Thus it is a *vulgar* Idea when we conceive the Rainbow to be a large Arch in the Clouds, made up of several Colours ; but when a Philosopher considers it as caused by the various Reflections and Refractions of the Sun-beams in Drops of falling Rain, this is a *learned* Idea.

Q. What is the Meaning of *Perfect* and *Imperfect Ideas* ?

A. *Perfect* or *Adequate Ideas* are such

such as represent the *Whole* of the Objects to which they are referred. Thus all our *simple Ideas*, such as *Sweet, Bitter, Black, White, &c.* may be called *perfect*, because they are without Parts: And several of our *complex Ideas* are also *perfect*, as those of a *Square* or *Triangle*, all the Parts whereof are evident, and the Mind comprehends them compleatly. *Imperfect* or *Inadequate Ideas* are but a *partial* or *incomplete Representation* of their Objects. Thus we have only an *imperfect Idea* of a *Figure of a thousand Sides*, of the *Powers of the Loadstone*, or of *Infinity*, which is ever growing, and can never be completed.

Q. What is meant by *True* and *False Ideas*?

A. Ideas are *true* when they are *conformable to the Objects*, and *represent*

present them as they really are; otherwise they are *false*; As when every Thing appears *yellow* to a Man in the Jaundice, or a *straight* Stick seems *crooked* in the Water.

C H A P. IV.

Of WORDS and TERMS, whereby our Ideas are expressed.

Q. Y O U have shewn how we acquire our Ideas, and have enumerated their various Kinds; but how do we convey them to each other?

A. By Means of certain Sounds, or written Marks, which we call *Words*; that is by the Use of *Speech* or *Language*. But as Words are the Medium whereby we mutually receive and communicate our Knowledge, so they

are often the Sources of Mistake and Error.

Q. How do Words lead us into Mistakes?

A. Our Mistakes are chiefly owing to the following Causes. 1. Because there is no natural Connection or Relation between *Words* and the *Ideas* they are designed to express. 2. Because *different simple Ideas* are often expressed by the *same Words*; as the Word *sweet* (for Instance) is applied to the *Objects* of *Tasting*, *Smelling* and *Hearing*. 3. Because very *complex Ideas* are frequently expressed by *single Words*, which can never distinctly manifest all their Parts. And hence it happens, that one Man includes *more or less* in his *Idea* than another does, while he affixes the *same Word* to it; which occasions Debates and Confusion. 4. Because many Words are

are used in a Sense entirely different from what they had in the Language whence they are derived ; as the Word *Spirit* originally signified *Air*, or *Breath*, which has now quite another Signification. 5. Because several Things are often denoted by one and the same Name ; as *Shore* signifies the *Sea Coast*, or a *Prop to support a Building*. From these Considerations it appears, that to prevent our being led into Error whilst we are pursuing after Truth, it is necessary to guard well the *Use* and *Meaning* of *Words* and *Terms*, and to be acquainted with their various *Kinds*.

Q. Into how many Kinds are Words and Terms divided ?

A. Logicians divide them into *Positive* and *Negative*, *Simple* and *Complex*, *Common* and *Proper*, *Abstract* and *Concrete*, *Univocal* and *Equivocal*.

Q. Which

Q. Which are *Positive* and which *Negative Terms.*

A. *Positive Terms* have an *affirmative Sense*, and signify some *positive Idea*; as *Art*, *Prudence*, *Regular*, *Finite*, *Pleasant*, &c. *Negative Terms* are quite the *Reverse* of the *positive ones*, having a *denying Syllable* or *Particle* joined to them, either at the *Beginning* or *End* of the *Word*; as *Artless*, *Imprudence*, *Irregular*, *Infinite*, *Unpleasant*, &c. But such is the *Imperfection* of *Language*, that some *positive Terms* are made to signify *negative Ideas*; and some *negative Terms* imply *positive Ideas*; so that we cannot certainly know whether an *Idea* is *positive* or *negative* by the *Word* that is used to express it.—*N. B.* In our *Language* *two negative Terms* are equal to one *positive*; as *not immortal* signifies *mortal*.

Q. What

Q. What is meant by *Simple* and *Complex Terms* ?

A. A *simple* Term is *one Word* ; a *complex* Term is when *more Words* are used to signify *one Thing*. Thus, the *Founder of Rome* is a *Complex Term*, but the Words excite the Idea of *one Man* only, viz. *Romulus*. On the other hand, some Terms are *complex* in *Sense*, but not in *Words* ; as a *Family*, an *Army*, a *Forest* : And so *Religion*, *Charity*, *Knavery*, *Loyalty*, and many more, are *simple* Terms, but include a variety of Ideas. Other Terms are *complex* both in *Words* and *Sense* ; as a *sharp Knife*, a *sweet Apple*, &c. which excite an Idea not only of the Things themselves, but also of their Qualities.

Q. What is the Meaning of *Common* and *Proper Words* ?

A. *Common Words* or *Names* (which are also called *Appellatives*) are such as stand

stand for *universal Ideas*, or a whole Rank of Beings, whether general or special. Thus *Man*, *Bird*, *Fish*, *City*, *River*, *Mountain*, are *common Names*; and so are *Sparrow*, *Raven*, *Salmon*, *Lobster*: for they all agree to many *Individuals*, and some of them to many *Species*; But *Virgil*, *London*, the *Thames*, *Vesuvius*, are *proper Names*, because they belong to one particular *Man*, *City*, *River*, and *Mountain*.— Here we may observe, that a *proper Name* may in some Sense become *common*; as *Cæsar* was the *proper Name* of *Julius* the first *Roman Emperor*, and became the *common Name* of the succeeding Emperors. So also a *common Name* is sometimes used as a *proper one*; as when we say the *King*, meaning *King George*. And indeed any *common Name* is made *proper*, by the Addition of some Term of a *particular and*

and determinate Meaning ; as this House, that Garden, the present Emperor, &c.

Q. What is meant by *Abstract* and *Concrete* Terms.

A. *Abstract* Terms are those which express some *Mode* or *Quality*, considered separately, and without any Regard to its Subject ; as *Wisdom*, *Piety*, *Hardness*, *Whiteness*, *Happiness*.—*Concrete* Terms are those which signify some *Quality*, and at the same Time express or imply some *Subject* to which it belongs ; as *wise*, *pious*, *hard*, *white*, *happy* : But they are not always what Grammarians call *Adjectives* ; for *Slave*, *Hypocrite*, *Philosopher*, and many other *Concretes* are *Substantives*, as well as *Slavery*, *Hypocrisy*, and *Philosophy*, which are *abstract* Terms that belong to them.

Q. What

Q. What is meant by *Univocal* and *Equivocal* Terms?

A. *Univocal* Terms are such as signify but one *Idea*, or at least but *one Sort of Thing*; as *Book*, *Fish*, *House*, *Gold*, *Silver*, and all other Words, the bare Mention whereof excites a certain fixed Idea, so that we have not the least Doubt about their Meaning.——*Equivocal* Terms are those which signify two or more different *Ideas*, or *different Sorts of Objects*. Thus *Foot* is an equivocal Word, as signifying the *Foot of an Animal*, or a *Measure of twelve Inches*: *Post* is equivocal, being used for a *Piece of Timber*, or a *Messenger who carries Letters*. So *Grace*, *Church*, *Bitter*, *Sweet*, *Sharp*, and a Multitude of others, are equivocal, or *ambiguous*, as signifying several different Things; and the Use of such Words, with a design to *puzzle* or *deceive*

deceive, is called *Equivocation*. These ambiguous Terms, which have several Meanings, are also called *Homonymous*; as different Words signifying the same Thing, are called *Syncnymous*.

Q. Are there not various Kinds of *equivocal* Words?

A. Yes; so many that it would be tedious to enumerate them all; but some of the most remarkable and useful Distinctions among them are those which follow. 1. Some Words are *equivocal* in *Sound*, but not in *Writing*; as the *Rein* of a Bridle, the *Reign* of a King, the *Rain* that falls from the Clouds: Others in *Writing*, but not in *Sound*; as *Bowl* a Ball, and *Bowl* a Vessel, are written the same Way, but pronounced differently: Others, which are most properly called *equivocal*, are those that are written and pronounced alike, but have different Senses;

Senses; as *Post* and *Foot* above mentioned. 2. Words are *equivocal* in respect to the *Extent of their Meaning*, which are sometimes taken in a *large* and *general* Sense and sometimes in a Sense more *particular* and *restrained*. Thus, strictly speaking, *Holland* is but *one* of the *United Provinces*; though in a *large* Sense it includes all the *Seven*. 3. Words are *equivocal* by being sometimes used in a *literal*, and sometimes in a *figurative* Sense; as when *Man* is said to *repent* or be *angry*, it is understood literally; but when spoken of *God*, the Expressions are *figurative*. 4. Some are *equivocal* on account of a *common* and *scientific* Meaning; as *Passion* vulgarly signifies *Anger*, but philosophically the *receiving any Action impressed*.—These are the principal Kinds of *equivocal* or *ambiguous Words*.

C H A P.

C H A P. V.

Rules relating to our Conceptions of Things; with Directions for DEFINITION, DIVISION, and DISTRIBUTION.

Q. B Y what Rules are we to guide and regulate our Conceptions?

A. 1. Conceive of Things *clearly* and *distinctly*, as they are in their own *Natures*. 2. Conceive of them *completely*, in all their *Parts*. 3. Conceive of them *comprehensively*, with regard to their *Properties* and *Relations*. 4. Conceive of Things *extensively*, in all their *Kinds*. 5. Conceive of Things *orderly*, or in a proper *Method*.

Q. What is necessary to be observed with respect to the FIRST Rule?

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A. In all Discourse or Argument proper *Definitions* are necessary, that every thing may be *clearly* and *distinctly* understood.

Q. What is meant by **DEFINITION**?

A. *Definition* is of two Kinds; one of *Names* or *Words*, the other of *Things*.

Q. What is the Definition of a **NAME**?

A. It is the explaining and determining precisely *in what Sense we use a Word*, or what Object we mean by it; which may be done in any Manner, so as to convey our Meaning sufficiently to another Person.

Q. What Directions are proper to be observed in the Definition of **Names**?

A. Principally the following. 1. *Avoid making use of mere Words, which have no Idea belonging to them, or no settled*

settled and determinate Meaning. For what signifies talking of *Fate*, *Fortune*, *Perfection*, *Instinct*, &c. without we have some certain Idea first affixed to these Words ? Do not suppose the *Nature of Things* to be always as different as their *Names*. For the Words *Herb*, *Sallad*, *Weed*, though they are different Names, are not really three different Species of Beings. 5. Do not think the *Nature* of two *Things* the same because they have the same *Name*. Thus *Heat* which we feel by being near the *Fire*, and the *Cause* of that *Sensation* in the *Fire* itself, are very different, though the same *Name* is applied to both. 4. Use no ambiguous *Words* in your *Definitions* ; for this may make your *Candour* and *Ingenuity* suspected. 5. Define your *Words* in the same *Sense* in which *Mankind* use them, as near as possible ; and in your

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Discourse

Discourse keep close to your first Definitions, unless you give proper Notice of the Change.

Q. What is the Definition of a **THING**?

A. An Explanation of its *Nature*, including something which is *common* to it with other *Things*, and something that is *peculiar* to the *Thing* defined. Thus, if I would give a Definition of *Wine*, I say it is *Juice pressed from Grapes*.

Q. How is a Definition of any *Thing* to be formed?

A. By considering what is the *nearest Genus* or *general Nature* of the *Thing* to be defined, and then what is its *primary Attribute* or *Property* wherein it *differs* from all other *Things* that are most like it. Thus, in forming the above Definition, tho' *Wine* is a *Substance*, I do not make use of that Term, because

because it is a very *remote Genus*; nor do I call it a *Liquid*, because that is still too *remote*; but I say it is a *Juice*, because that is its *nearest general Nature*; tho' common with it to many other Things: Having gone thus far, I am to consider what is its *primary Attribute* wherein its *specific Difference* consists; that is; wherein it differs from all other Juices. Now if I should say, it is the *Juice of a Fruit*, this Difference would be too general, for it would not distinguish it from *Cyder*, *Perry*, &c. which are Juices of Fruits also: But when I say, it is a *Juice pressed from Grapes*, this expresses its *special Nature*, which distinguishes it from all others. Therefore the general and special Nature joined together, or (as Logicians call them) the *Genus* and the *Difference*, make up a *Definition*.

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Q. Which

Q. Which are the chief Rules of a good Definition ?

A. 1. That it be *adequate* or *universal*; that is, it must agree in all the particular Species included under the Idea of the Thing defined. Thus, the *Juice of the Grape* agrees to all Wines, (properly so called) whether *Red*, *White*, *Spanish*, *French*, &c. 2. It must be *peculiar* to the Thing defined, and agree to *that alone*. So the *Juice of the Grape* agrees to no other Being but *Wine*. 3. It ought to be *clear* and *plain*, and consequently free from all ambiguous Words. 4. It should be *short*, and not so as to leave it obscure; and indeed the *Difference* of Things cannot be always expressed in a few Words, as consisting of several Attributes or Ideas. 5. A Definition of a *Thing* must not be expressed in mere *synonymous Words*; for that

that would not explain its *Nature*, and be no better than a Definition of the *Name*.

O. Is every Thing capable of being exactly defined?

A. No; it is very difficult to define some Things accurately, and others cannot be defined at all. Where the Essence of Things approach near to each other, so that their Limits cannot well be adjusted, it is difficult to define them; because we cannot tell under what *Species* to rank them, or how to determine their *specific Difference*. It is hard (for instance) to define a *Batt*, which is between a Bird and a Beast; or a *Barge*, which is between a Boat and a Ship.—*Being* and *Not-being*, having no superior *Genus*, can never be defined; neither can *Individuals*, because either they have no *essential Differences* from other

Individuals, or their Differences are not known to us ; and therefore we can only describe them by their particular Circumstances. Lastly, We know so little of the *Essence* of the various Kinds of *natural Beings* or *Substances* that our Definitions of them are only an Enumeration of their chief *Parts* or *Properties*, which best explain and distinguish them from other Things according to our Observation. Thus we should define *Silver* to be a *white hard Metal, the finest and most ductible next to Gold, &c.* A *Primrose* is a *yellowish Flower consisting of several small Leaves of such a particular Shape, &c.* But this Sort of Definition is called *imperfect*, or a *Description* ; the *perfect* Definition being composed of the *specific Difference* added to the general *Nature or Genus*, as above observed.

Q. How do you explain your **SECOND**

CON II Rule, relating to a *compleat* Conception of Things?

A. To conceive of Things *compleatly*, we must take them as it were to Pieces, and consider all their Parts separately. This Rule therefore only refers to *complex* Ideas, for *simple* Ideas have no Parts. Now all *Parts* imply some *Whole* to which they belong; and our *whole Ideas* may be distinguished into two Kinds. 1. There is a *Mathematical* or *Integral Whole*, which is when all the Parts are distinct from each other, and may subsist apart. So the *Head*, *Limbs*, and *Trunk* are the *Integral Parts* of a human Body: *Units* are the *integral Parts* of large Numbers: And the *Spring*, *Wheels*, *Balance*, *Dial-Plate*, &c. are the *integral Parts* of a Watch. An Enumeration of these Parts of an Idea is what Logicians call *DI-
VI-
SION*;

sion ; and when any of the Parts are still farther divided, it is called a *Sub-division*. 2. There is a *Logical* or *Universal Whole*, the Parts whereof are all the particular Ideas to which the universal Nature extends. So a *Genus* is a *Whole*, as *Animal* ; and the several *Species* are its *Parts*, as *Man*, *Beast*, *Bird*, &c. A *Species* is likewise a *Whole*, as *Horse* ; and the *Individuals*, as *Trot*, *Ball*, *Dobbin*, &c. are the *Parts*. A proper Enumeration of these Parts of an Idea is called **DISTRIBUTION**.

Q. Which are the Rules relating to *Division* ?

A. 1. *Each Part taken separately must be less than the Whole, but all together must be exactly equal to it.* To divide a *Tree* therefore into the *Trunk* and the *Leaves* would be an imperfect *Division*, since the *Whole* is not complete

pleat without the Root and the Branches; 2. In all Divisions begin with the larger and more immediate Parts of the Subject, and so proceed 't the more minute and remote Parts. For it would be very improper to divide a Kingdom first into Streets and Fields; but we must first begin with Provinces or Counties, and then those Counties may be divided into Towns, Fields, &c. and Towns into Streets and Lanes. 3. The Parts of a Division should be opposite, so as not to contain one another. It would therefore be improper to divide an Animal into Body, Head, Limbs, and Bones, because Bones are included in all the other Parts. 4. We ought not to run into many Subdivisions without Necessity. 5. We should divide our Subject according to the Design we have in View. So a Printer divides a Book into Sheets and Pages; but a Logician, considers

considers it as divided into *Chapters*, *Sections*, *Propositions*, &c. 6. In all *Divisions* the *Nature of Things* should be carefully observed. Thus Nature plainly leads us to divide a *Tree* into the *Root*, the *Trunk*, and the *Branches*; but it would be unnatural to divide it into the *upper Half* and the *lower Half*, since it would be hard to determine how much belonged to the one, and how much to the other.

Q. Which are the Rules relating to *Distribution*?

A. They are much the same with those applied to *Division*; For, 1. The *Parts* of a *Distribution* taken together must contain the *Whole*. So *Mankind* are justly distributed into *Male* and *Female*. 2. In *distributions* we must begin with the larger and more immediate *Species* or *Ranks* of *Beings*, and not with those which are more minute and *remote*.

remote. Thus *Animal* would be improperly divided into *Sparrow*, *Dove*, *Trout*, *Flounder*, *Horse*, *Bear*, &c. whereas it should first be distributed into *Man*, *Beast*, *Bird*, *Fish*, *Insect*; and then *Beast* into *Horse*, *Bear*, &c. *Bird* into *Eagle*, *Sparrow*, &c. *Fish* into *Trout*, *Flounder*, &c. and *Insect* into *Wasp*, *Butterfly*, *Caterpillar*, &c.

3. The Parts of Distribution should not contain or include one another. Thus *Men* may properly enough be distributed into *Young*, *Old* and *Middle-aged*; but not into *Rich*, *Poor*, and *Learned*, because *rich Men* may be *learned*, and so may the *Poor*. 4. Subdivisions should not be numerous without Necessity. 5. Each Subject should be distributed according to the special Design we have in View. Thus, in treating of Politics, *Mankind* may be distributed into the *Rulers* and the *Ruled*; but, with respect to Religion

Religion, they are distinguished into *Heathens*, *Mahometans*, *Jews*, and *Christians*. 6. *We should carefully follow Nature in all our Distributions.*

Q. What is the Meaning of your **THIRD RULE**, relating to a *comprehensive* Conception of Things?

A. As we obtain a *compleat* Conception of an Object by surveying it in all its Parts, so we obtain a *comprehensive* Conception of it by considering it in all its *Modes*, *Attributes*, *Properties*, and *Relations*. Indeed, it is neither necessary nor possible to run through *all* the Modes, Circumstances, and Relations of every Subject we take in hand; but a judicious Speaker or Writer will chuse those which are most necessary to his Design, either to explain, illustrate, or prove his Point.

Q. How are we to understand the **FOURTH RULE**, which directs us to conceive of Things *extensively*?

A. To have an *extensive* Conception of a Thing is to consider the various *Sorts* or *Kinds* of Beings to which the same Idea belongs, *i. e.* to search out the several *Species* or *special Natures*, that are contained under a *Genus* or *General Nature*. Thus, if we conceive *extensively* of an *Animal*, we consider *Beasts*, *Birds*, *Fishes*, and *Insects*, as well as *Men*, which are all included in that general Name. Such a Conception of Things enable us to make a proper *Distribution* of an *Universal Whole* into its various *Species* and *Individuals*, the Rules for which have been just now given.

Q. What is the Intention of the FIFTH Rule, to conceive of Things orderly ?

A. This Rule is intended to prevent Confusion, either in the Mind of the Teacher or the Learner ; for which Purpose

Purpose our Ideas ought to be disposed in a *just* and *proper Method*, that may assist both the Understanding and the Memory: As Books in a well ordered Library are disposed according to their Sizes and Subjects, so that any one of them is readily found by the Student. We might here lay down Rules relating to *Method*, but that would be anticipating what belongs to the *Fourth Part* of *Logic*, wherein we shall speak of it more largely.

P A R T

P A R T II.

Of J U D G M E N T.

Q. **W**HAT is meant by JUDGMENT ?

A. *Judgment* is that Operation of the Mind, whereby we *compare* two or more *Ideas* together, and either *affirm* or *deny* something concerning them according as we find they *agree* or *disagree* with each other.

Q. Cannot the *Mind* then form a *Judgment*, without something be *affirmed* or *denied* in *Words* ?

A. Yes, the *Mind* may perceive the *Agreement* or *Disagreement* of *Ideas*; and accordingly *assent* or *dissent* within itself, though no *Words* are used.

used. And this is properly called *Judgment*; for when any Judgment is expressed in Words, it is called a *Proposition*. In short, as Ideas are the Result of *Conception* or *Apprehension*, so *Propositions* are the Effects of *Judgment*.

C H A P. I.

Of the Nature of PROPOSITIONS in general, and the Parts wherof they are composed.

Q. W H A T is a Proposition?

A. It is a Sentence wherein two or more Ideas or Terms are joined or disjoined by one Affirmation or Negation; that is, wherein something is affirmed or denied: As, *Men are mortal*: *Poverty is no Vice*: *Compleat Happiness is not attainable on Earth*.

Q. What

Q. What are the *Parts* which constitute a Proposition?

A. The *Subject*, the *Predicate*, and the *Copula*.

Q. What is the *Subject* of a Proposition?

A. It is that of which any Thing is affirmed or denied. So *Men*, *Poverty*, *compleat Happiness*, are the Subjects of the foregoing Propositions.

Q. What is the *Predicate*?

A. It is that which is affirmed or denied of the Subject. So *mortal Vice*, *attainable on Earth*, are Predicates in the above Examples.

Q. What is the *Copula* of a Proposition?

A. It is the Word or Words whereby the Affirmation or Negation is expressed, and the Subject and Predicate are connected. These are *am*, *art*, *is*, *are*, *can*, *may*, &c. or *am not*, *art not*,

is not, are not, and many others of the like Nature. *N. B.* The *Subject* and *Predicate* are called the *Matter*, and the *Copula* is called the *Form* of a Proposition.

Q. Are all these Parts *distinctly expressed* in every Proposition?

A. No, but they are all implicitly contained in it. Thus, *I write* is a compleat Proposition, though the *Copula* seems to be wanting; for it is the same as *I am writing*. So in the Proposition *Rome is*, the Word *is* includes both the *Copula* and *Predicate*; being the same as *Rome is in Being*.—And here it may be proper to observe, that the several Parts of a Proposition are not always to be known by the Order in which the Words are placed, but by duly considering the Sense of them, and the Design of the Writer or Speaker.

C H A P.

C H A P. II.

Of the various Kinds of PROPOSITIONS.

Q. INTO how many Kinds are Propositions usually distinguished?

A. They are distributed into various Kinds according to their *Subject*, *Co-pula*, and *Predicate*; or with respect to their *Nature*, *Sense*, and *Evidence*.

Q. How are they distinguished in regard of their SUBJECT?

A. Into four Kinds, *viz.* 1. *Universal*, when the Subject is taken in its whole Extent; which Universality is commonly expressed by the Words *all*, *every*, *no*, *none*, and the like; as *All Creatures had a Beginning*: *No Man is free from Failings*. 2. *Particular*, when the Subject is not taken in its whole Extent, but is limited by a Word denoting Particularity, *as some*

Some, many, few, &c.
some Men are blind
are erroneous. 3.

when a Proposition of
individual Person or
man was a wise Man
fine. But this Sort
may justly be included
in the Name of Universal
Name of Universal
the Subject is taken
for being an Individual
to that only. 4.
when a Subject has
Universality or Part
to it, but yet is general
as, *Angels are immortal*
Sensation. But these
Propositions (especially with
the Nature of Things)
reckoned Universals

Q. How are Propositions
 and with respect to the

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Propositions to be divided into
 Propositions of the First, Second, & Third
 Species. The First Species is called
 Propositions of Identity, & the Second
 Propositions of Predication. Hitherto
 we have considered only the First Species
 of Propositions called Identity. Now we
 will consider the Second Species called
 Predication. In this Species we have
 three Species, called the First, Second, & Third
 Species of Predication. The First Species
 of Predication is called the Species of
 Predication of Identity, & the Second Species
 of Predication is called the Species of
 Predication of Predication, & the Third Species
 of Predication is called the Species of
 Predication of the Object. The
 Species of Predication of Identity is
 called the Species of Identity, & the Species
 of Predication of Predication is called
 the Species of Predication of Predication.

chiefly *Exclusives* and *Exceptionals*: former are so denominating the exclusive *Words*, *alone*, *but*, *as*, *but*, *besides*, *Man*, *is rational*. In to be *single Propositions*, the Consideration will shew contain two at least. The Instance) may be resolved: *God is eternal*; and, *No thing is so*.—I might add more as under this Head, and me in shewing whereon the these several Propositions depend also how they are to be opposed contradicted, but I think this of little Service, since a more of common Sense will be for these Purposes, without the help of Rules.

Q. How

Some, many, few, &c. as when we say, some Men are blind: Many Opinions are erroneous. 3. *Singular*, which is when a Proposition only relates to one individual Person or Thing; as *Solomon was a wise Man: This Day is very fine*. But this Sort of Propositions may justly be included under the general Name of *Universals*, because the Subject is taken in its full Extent; for being an Individual, it can extend to that only. 4. *Indefinite*, which is when a Subject has no Note either of Universality or Particularity prefixed to it, but yet is general in its Nature; as, *Angels are immortal: Stones have no Sensation*. But these indefinite Propositions (especially when they describe the Nature of Things) are also to be reckoned *Universals*.

Q. How are Propositions distinguished with respect to their CōPULĀ?

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A. Into *Affirmative* and *Negative*.

In *affirmative* Propositions something is positively asserted of the Subject, and is joined to it by the Words *is*, *are*, &c. as *God is a Spirit*. In *negative* Propositions something is denied of the Subject, and is therefore disjoined from it by the Particle *is not*, *are not*, &c, as, *Man is not a Stone*. Here it is natural to observe, that the Sense of many Propositions may be plain and easy, though it may be difficult to say whether they should be ranked under the Names of *negative* or *affirmative*; nor is it worth while to wrangle about Matters of so little Importance. The Distinction indeed is allowable and useful; but it seems to me, that all Propositions may in some Sense be called *affirmative*; for all affirm that something *is*, or *is not*; or, in other Words they affirm the

Agreement or Disagreement of Ideas. Let the Scholar likewise take Notice, that in our Language two Negatives in one Sentence make an Affirmative; for if we say, *No Man is not mortal*, it is the same as if we said, *Every Man is mortal*. But in Greek, and very often in French, two Negatives only deny more strongly. In English they are highly improper.

Q. How are Propositions distinguished with respect to their PREDICATE?

A. Into *Pure* and *Modal*. A *pure* Proposition merely and simply expresses that the Predicate is connected with the Subject; as, *A Globe is round*. A *modal* Proposition shews also the Way and Manner wherein the Predicate and the Subject are connected.

These *Modes of Connection* are usually reckoned four, viz. 1. *Necessity*; as, *It is necessary that a Globe should be round*.

round. 2. *Contingency*; as, *A Globe may be made of Brass or Wood*, for this is an indifferent or contingent Thing. 3. *Possibility*; as, *It is possible a Globe may be made of Water*. 4. *Impossibility*; as, *It is impossible that a Globe should be Square*.

Q. Are there no other Modes of connecting the Predicate with the Subject?

A. Yes, many more; for to those above-mentioned, which are only *natural*, might be added *moral* and *civil* Modes, such as *Lawfulness* and *Unlawfulness*, *Conveniency* and *Inconveniency*, &c. So also, *it is probable*, *it is improbable*, *it is certain*, *it is doubtful*, *it is said*, *it is written*; and various other Modes of speaking, whereby a Predicate and a Subject are connected, will form other Kinds of *modal Propositions*.

Q. How are Propositions distributed with regard to their NATURE?

A. Into *Single* and *Compound*.

Q. What is a *Single Proposition*?

A. That which has but *one* Subject, and *one* Predicate. If these consist only of *simple Terms*, the Proposition is called *simple*; as, *Sinners are miserable*: *Virtue is desirable*. But if the Subject or Predicate are made up of *complex Terms*, the Proposition is also called *complex*; as, *Impenitent Sinners are miserable*, *Virtue is desirable more than Gold*.

Q. What is a *Compound Proposition*?

A. That which has *two or more Subjects or Predicates*, or both, and therefore contains *two or more Propositions*, either plainly expressed or implied.—The first Sort of *compound Propositions*, *i. e.* wherein the *Composition* is *expressed* and *evident* are distinguished

distinguished into *Copulative*, *Disjunctive*, *Conditional*, *Causal*, *Relative*, and *Discretive*; of which take the following Examples. 1. Those are *copulative*, whose Subjects and Predicates are connected by affirmative or negative Conjunctions; as, *Riches and Honours are Snares*: *Neither Gold nor Diamonds can save us from Death*. These are evidently *compound*, for each of them may be resolved into two Propositions, viz. *Riches are Snares*, and *Honours are Snares*: *Gold cannot save us*, &c. *Diamonds cannot save us*, &c. 2. In *disjunctive* Propositions the Parts are opposed to one another by disjunctive Particles; as, *It is, either Day or Night*. 3. *Conditional* or *Hypothetical* Propositions have their Parts united by a conditional Particle; as *If the Sun shines, it is Day*. The first Part of such Propositions, wherein the Condition

dition lies, is called the *Antecedent*, and the other the *Consequent*. 4. *Causal Propositions* are so denominated from the causal Particles by which they are connected; as, *We are dependent because we are Creatures.* Hither some refer those Propositions called *reduplicative*; such as, *Men, as Men, are rational*; that is; because they are Men. 5. *Relative Propositions* (which are near a-kin to conditional ones) express a Relation or Comparison of one Thing to another; as, *Where the Treasure is, there will the Heart be.* 6. *Discretive Propositions* are those wherein various Judgments are made denoted by the Particles *but, though, &c.* as, *A good Boy may play, but should not forget his Task: Job was penitent, though his Affliction was great.* — The second Sort of compound Propositions, where the Composition is not so evident,

dent, are chiefly *Exclusives* and *Exceptionals*. The former are so denominated from the exclusive Words, *alone*, *only*, &c. as, *God alone is eternal*. The latter are known by the exceptive Words, *besides*, *unless*, *none*, *but*, &c. as, *No Animal, besides Man, is rational*. These seem to be single Propositions, but a little Consideration will shew, that they contain *two* at least. The first (for Instance) may be resolved into these: *God is eternal*; and, *No other Being is so*.—I might add more Distinctions under this Head, and spend Time in shewing whereon the Truth of these several Propositions depends, as also how they are to be opposed or contradicted, but I think this would be of little Service, since a moderate Share of common Sense will be sufficient for these Purposes, without the Formality of Rules.

Q. How

Q. How are Propositions distinguished with regard to their SENSE?

A. According to their Sense or Signification, they are distinguished into True and False. A true Proposition represents Things as they really are in themselves; as, *Birds have Wings*: *Brutes are not insensible Machines*. A false Proposition represents Things otherwise than they really are, as, *Birds have no Wings*: *Brutes are insensible*.

Q. Is there any certain Mark whereby we can distinguish Truth from Falseness?

A. Yes, the Criterion or distinguishing Mark of Truth is EVIDENCE; that is, a clear and distinct Perception of the Agreement or Disagreement of Ideas to one another: For since we cannot withhold our Assent when the Evidence is plain and strong, we should be

be necessarily led into Error if compleat Evidence could be found in Propositions that are false ; but it would be impious to suppose, that the God of Truth and Goodness would ever oblige his Creatures to be so deceived.

Q. How are Propositions distinguished with respect to their EVIDENCE ?

A. According to their different Degrees of Evidence they are distinguished into *Certain* and *Doubtful*.

Q. What is a *certain* Proposition ?

A. That wherein the Agreement or Disagreement of the Ideas appears so plainly to the Mind, that we cannot forbear assenting to it ; as, *The Whole is greater than a Part* : *Two and Two make Four*. *Every Circle has a Center*. Propositions of this Kind make what we call *Knowledge*.

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Q. What is a *doubtful* Proposition?

A. That whose Evidence is not so clear and strong as to force the Assent of the Mind ; but permits us to suspend our Belief at Pleasure ; as, *The Moon is inhabited* : *The World will be destroyed in less than a thousand Years* : Such uncertain Propositions are what we call *Opinions*.

Q. Does not this last Sort of Proposition admit of a further Distinction ?

A. Yes, they are distinguished into *Probable* and *Improbable*. We call that a *probable* Opinion or Proposition, when the Evidence of it is greater than the Evidence of the contrary : When the Evidence or Arguments are stronger on the contrary Side, we call it *improbable* : But if the Arguments on both Sides appear equally strong, we commonly call it *doubtful*. And in general

general all Propositions are *doubtful* wherein we can perceive no sufficient Marks either of Truth or Falshood: In which Case the Mind ought to suspend its Assent, till superior Evidence on one Side or other incline the Balance of the Judgment.

Q. How many *Kinds* of Evidence are there?

A. Six, viz. *Sense, Consciousness, Intelligence, Reason, Faith, and Inspiration*; on one or more of which all Propositions are grounded.

Q. How do you explain these several Kinds of Evidence?

A. 1. The first Kind is that which arises from the Dictates of our *Senses*, on which are built such Propositions as these: *Graſs is green: Sugar is sweet: Hunger is painful, &c.* and these may be called *sensible Propositions*.
 2. Many Propositions are built on **H.** an

an inward CONSCIOUSNESS, or spiritual Sensation of what passes in the Mind ; as, *Long Meditation on one Thing is tiresome : Fear is a troublesome Passion : I am desirous of Knowledge, &c.* These Propositions are not distinguished (that I know of) by any particular Name. 3. INTELLIGENCE relates to self-evident Propositions, or those Principles of Truth which are wrought (as it were) in the very Nature and Frame of our Minds, and to which we necessarily assent as soon as the Terms are understood ; as, *No Effect is produced without a Cause : A Part is less than the Whole, &c.* These are called *Axioms, Maxims, or first Principles*, being the very Foundations on which all our Reasonings are built. 4. When one Truth is justly inferred or drawn from others, this is the Evidence of REASONING ; as when I see a Watch,

a Watch, I conclude, *Some Artificer made it*, when I survey the Heavens and the Earth, I infer, *There is a God who created them*. Propositions built on this Kind of Evidence are called *Conclusions*, or *rational Truths*; and the Knowledge we thus acquire is properly called *Science*. 5. The Evidence of EARTH is that which is derived from the Testimony of others. By this we know that there is such a Country as Egypt, that there was such a City as Troy, and such a Poet as Homer. This, in short, makes a great Part of our Knowledge, there being ten thousand Things which we believe upon the Authority of those who have spoken or written about them; and as these Persons are many or few, and of more or less Wisdom and Credit, so our Faith is stronger or weaker, and the Proposition believed is either cer-

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tain or doubtful ; but in Matters of Faith a very great Probability is called a moral *Certainty*. When we believe any Thing upon the Word of *Man*, it is called *Human* Faith, but when we believe, because *God* has revealed it, that is *Divine* Faith ; and the infallible Assurance arising from such Evidence is called *supernatural* *Certainty*.

6. Another Sort of Evidence, distinct from all the former, is **INSPIRATION**, or a convincing and indubitable Impression of any Truth made upon the Mind of *God* himself. Propositions built on such Evidence are called *inspired Truths*. This is *Divine Revelation* in the first and highest Sense, being the Dictates of the Holy Spirit in an immediate Manner.

C H A P.

C H A P. III.

Of the OPPOSITION and CONVERSATION
of Propositions.

Q. **W**HAT is farther to be observed relating to Propositions?

A. It is proper to take Notice, that the Distinction of Propositions into *universal* and *particular* is said to be according to their *Quantity*; but when they are distinguished into *affirmative* and *negative*, this is said to be according to their *Quality*. With respect to both *Quantity* and *Quality* they are distinguished into four Kinds, which

H 3 Logicians

If two *Universals* differ in Quality, they are called *Contraries*; as,

- A *All Men are mortal.*
- E *No Men are mortal.*

These cannot be both true together, but may be both false.

Two *Particular Propositions*, opposite in Quality, are called *Subcontraries*; as;

I *Some Men are mortal.*

O *Some Men are not mortal.*

These may be both true, but cannot be both false.

Propositions which differ only in Quantity, are called *Subalterns*; but these are not properly opposite, because the particular Proposition is always included in the universal one; as,

A *All Men are mortal.*

I *Some Men are mortal.*

Or thus,

E *No Men are mortal.*

O *Some Men are not mortal,*

The Properties of these Propositions are, 1. If the universal one be true, the particular one will be true also, but not on the contrary. 2. If the particular Proposition be false, the universal will be so too, but not the contrary. 3. They may be sometimes both true and sometimes both false.

Q. What is meant by the *Conversion* of Propositions?

A. This is when the Subject and Predicate of a Proposition may change their Places, and yet the Truth be preserved; which may always be done in *Universal Negatives* and *Particular Affirmatives*; as,

No

E. { *No Virtue is Vice,*
 { *may be converted,*
 { *No Vice is Virtue.*

Here we see the Subject of the former Proposition is made the Predicate of the latter, and the Predicate the Subject, yet both are equally true. So likewise,

I. { *Some Soldiers are Cowards,*
 { *may be converted,*
 { *Some Cowards are Soldiers.*

To say much more upon this Head would be spending Time without any real Advantage, as it would be trifling about a *Form* of Words, rather than discoursing about the *Matter*. But it may be observed, that there are some Propositions which may be always converted with Truth, by reason of the *Ideas* or *Matter* whereof they are composed. This is the Case in

Propositions

Propositions whose Predicate is a true Definition of the Subject, or the Difference of it; or the highest Degree of any Property or Quality; or in short, whenever the Subject and Predicate are exactly of the same Extent or Comprehension. As, *A Triangle is a Figure composed of three Sides*; and, *A Figure composed of three Sides is a Triangle*; *Religion is the truest Wisdom*; and, *The truest Wisdom is Religion*; *Adam was the first Man*; and, *The first Man was Adam*. Such Propositions as these are properly convertible, and are called *reciprocal Propositions*.

CHAP. IV.

OF PREJUDICES, or the Springs of False Judgment.

Q. **H**AVE you any Thing more to add concerning *Propositions*?

A. No;

A. No ; enough has been said concerning Propositions, in themselves considered : But before I proceed to the third Part of Logic, I shall endeavor to point out the *chief Springs and Causes of our Mistakes in judging of Things*, and to lay down some Rules to avoid them. Our *rash Judgments or Mistakes* are called **PREJUDICES**, and so are the *Springs of them* ; of which there is a vast Variety attending Mankind in every Age and Condition of Life ; and so interwoven with each other as well as with the Powers of Human Nature, that it is sometimes difficult to make a proper Distinction between them : But for the Sake of Method they may be reduced to the following Heads, *viz.* Prejudices arising from *Things*, from *Words*, from *Ourselves*, and from *other Persons*.

Q. [Which

Q. Which are the Prejudices arising from THINGS?

A. 1. *The Obscurity of some Truths, and the Difficulty of discovering them,* is one Source of false Judgment. This Sort of Prejudice, as well as most others, is cured by Patience and Diligence in our Enquiries, and by suspending our Judgment till we have sufficient Evidence of the Truth. 2. *The outside Appearance of Things and Persons frequently lead us into Mistakes.* But this Prejudice is removed by an Acquaintance with the World, and observing that Things are sometimes better and sometimes worse than they outwardly appear. A grey Beard is not a certain Sign of Wisdom; and a rough Diamond, though worth an immense Sum, may seem to us of no Value at all. 3. *A Mixture of different Qualities in the same Thing,* is another Spring of rash and *mistaken*

mistaken Judgment; for we are very apt to judge of the whole Object according to that Quality which makes the ~~first~~
or the strongest Impression upon us, without considering any of the Rest. This Sort of Prejudice is cured by learning to make just Distinctions, and not to judge in the Lump, either of Men or Things. 4. *The different Lights in which a Thing is placed, and the different Views in which it appears to us, often occasion us to form wrong Judgments concerning it.* To correct this Prejudice we should view a Thing, on all Sides, and compare its several appearances with one another, before we determine our Opinion. 5. *The casual Association of many of our Ideas is another Source of rash Judgment and Mistake:* As a Child that has drank a bitter Potion retains a bitter Idea of the Cup that held it, and is not easily persuaded to drink.

drink out of it again. Many Prejudices of this Kind we imbibe in our Youth, to remove which we must endeavour to separate those Ideas which have no natural and necessary Connection; but have been joined together only by Fancy, Chance, or Custom.

Q. What Prejudices arise from WORDS?

A. 1. We are led into several Mistakes by *insignificant*, *equivocal*, and *synonymous* Words; to avoid which let the Reader carefully observe what has been said in *Chap. IV.* of the first Part of this Treatise, and in *Chap. V.* concerning the *Definition of Names*. 2. Words joined in Speech, and composing a *Discourse*, are apt to lead us into Mistake two Ways. On the one hand, when a Man writes or speaks much to the Purpose, but has not a good Style or an engaging Manner of Expression, we frequently

frequently despise an excellent Discourse, and overlook the wisest and justest Sentiments. On the other hand, we are often charmed into Error by a Man of Eloquence, whose Art conceals or obscures the Truth, and places Falshood in a pleasing Light. To secure ourselves against those Dangers, we must learn to distinguish between Language and Idea, and to judge of Things in their own Natures, and in their just Relations to one another.

Q. Which are the Prejudices arising from OURSELVES?

A. 1. The *Prejudices of Infancy*, which are derived from the *Weakness of our Reason, and Incapacity to judge rightly of Things in our Childhood*. Thus Boys are apt to think Learning an unpleasant Thing, because perhaps they have been whipt at School; and to look upon those as their best Friends, who beg them a Holiday.

day, or screen them from Correction when they have done amiss. The Way to get rid of these Prejudices is to re-examine the Opinions framed in our tender Years, when our Reason is strong and mature. 2. The *Prejudices of Sense*, or the false Information of Things we receive from our Senses, are another Spring of rash Judgment and Mistake. Thus many People suppose the Sun and Moon to be *flat* Bodies, and much about the *same Bigness*, because they appear so to the Eye ; and because we do not feel the Air press heavy upon us, we are inclined to think it has *no Weight*. Such Prejudices as these remain with the Generality of Mankind, till they are cured by Learning and Philosophy. 3. Many false Judgments take their Rise from our *Imagination*, or the *Dictates of Fancy*: Some Persons take for Truth whatever is strongly impressed upon the

Imagination; and if they fancy (for Instance) this or that particular Number more fortunate than the rest, they will chuse a Lottery-Ticket accordingly, and think themselves sure of Success. To prevent such Deceptions as these, we must take care to bridle the Extravagancies of *Fancy*, to set that unruly Faculty aside in our Enquiries after Truth, and to let calm *Reason* determine our Opinions. 4. From the *various Passions or Affections of the Mind* arises innumerable Prejudices. *Love* makes even Blemishes appear as Beauties; *Fear* multiplies our Dangers; *Envy* represents our Neighbour's Condition better than it is; and to *Despair* the very least *Difficulty* seems unmountable. For these Prejudices the best Remedy is to keep a continual Watch over our Passions, and not to form our Judgments when the Affections are warmly engaged,

ed, but when the Mind is perfectly serene and composed. 5. *The Fondness we have for SELF, and for Persons and Things that have Relation to ourselves, is another great Spring of false Judgments.* The Laplander amidst his Ice and Snows, is as fond of his native Country as he who is born amongst the Gardens of Italy. Our Kindred, our Party, our Opinions, our very Names, seem to have something peculiarly valuable in them, and we cannot bear that others should think meanly of them. In a Word, the Prejudices of this Kind stick so closely to our Natures, and have such a pernicious Influence on our Understandings, that we cannot too much guard against them in our researches after Truth, and in forming our Judgment of what is Right and Wrong. 6. *The peculiar Tempers and Humours of the Mind have an Influence upon Mens Judgments, and are the*

Occasion of frequent Mistakes. Some are so *easy* and *credulous*; as to believe every Thing that has the least Shadow of Evidence; whilst others are led by a *Spirit of Contradiction* to oppose every Thing that is advanced either in Writing or Conversation. Some are always *positive*, others always *doubting*, and others perpetually *changing* one Opinion for another. These Tempers (and more that might be mentioned) are very injurious to a right Judgment of Things; but may be relieved by Patience in Study, and a diligent and honest Attention in the Search of Truth. 7. *A Dulness of Perception, a Defect of Memory, a Narrowness of Mind*, and several other Weaknesses belonging to Human Nature, are the Causes of Mistakes and Inconsistencies in Judgment; nor can we expect to be quite free from Errors and Imperfections in the present Life.

Q. Which

Q. Which are the Prejudices arising from OTHER PERSONS ?

A. 1. The *Prejudices of Education*, which we imbibe from our Nurses, from unskilful Teachers, from our School-fellows, from Servants, or any other Persons with whom we are conversant in our younger Years. It is then we are taught that there are Hobgoblins in the Dark ; that the Screeching of an Owl presages Death in a Family or Neighbourhood ; that such and such Days are lucky and unlucky, and a thousand such ridiculous Stories, which have too lasting an Influence over the weaker Part of Mankind. We take our *Religion* from our Parents and Tutors, and Millions are born, and live, and die in the same Faith, without examining any one Article, or being able to give any other Reason for it, than that they were taught and believed so from their *Infancy*.

fancy. These Prejudices are to be cured by bringing the Principles of our Youth to the Test of calm and severe Reason when we come to Years of Maturity. 2. Another Sort of Prejudice arises from the *Custom or Fashion of those amongst whom we live.* Our Cookery, our Dress, our civil and religious Forms and Practices, are all regulated by Custom ; and what appears elegant, polite, and decent in one Country, is awkward and ridiculous in another. To remove Prejudices of this Kind, it is of excellent Use to travel, or to read the Travels of other Men, and the History of past Ages ; and whenever we pass a Judgment concerning the Nature of Things, let us remember that Truth and Reason are invariable, and do not change with Fashion or Custom. 3. The *Authority of Men* is the Spring of another Kind of Prejudices. We very often pay

an

an unreasonable Difference to the Authority of the *Ancients*, and many impertinent Trifles are reverenced for no other Reason but because they bear the Mark of *Antiquity*. A Writer or Preacher of a great Name draws a Multitude of Followers into his own Mistakes ; the poor Man often believes as his wealthy Neighbour does, and the Opinion of the 'Squire is followed by half the Parish. But to remove these Prejudices let us remember, that no Man, of whatever Rank or Character, has any just Pretence to sway the Judgment of others by his own Authority ; and that Riches, Honours, Titles, and Reputation, are not always accompanied with Truth and Wisdom. 4. The Prejudices arising from the *Manner of Proposal* are near akin to those of Authority. Some Persons readily believe what another dictates with a *positive Air*

and a great Assurance: Others quickly swallow any Doctrine when it is proposed with all the *Airs of Piety*, and solemn Appeals and Protestations. Some are frightened into the Belief of particular Doctrines, because a Man of great Name or Character pronounces the contrary Sentiments *heretical* and *damnable*; whilst others are led into Error by a soft *Address*, and the engaging Methods of *Persuasion* and *Kindness*. The Way to avoid such Mistakes as these is to distinguish well between the *Substance of any Doctrine*, and the *Manner* in which it is *proposed*, *attacked*, or *defended*; and not to yield our Assent to any Thing but to the convincing Evidence of Truth.

Having thus pointed out many of the numberless Prejudices that attend Mankind, and the Means by which they may be avoided or removed. I shall conclude this Part of *Logic* with some general

general Directions to assist us in forming a *true Judgment of Things.*

C H A P. V.

General Directions for JUDGING aright.

Q. **W**HICH are the best *Rules* to direct us in forming our *Judgment?*

A. Some Hints for this Purpose have been occasionally dropt already ; but it will not be a needless Repetition to collect them in this Place, and exhibit at one View such general Directions as are proper to assist us in judging rightly. A great Number might be framed that would contribute to this End, but the most useful are those which follow.

DIRECTION I. *When we are searching after Truth, we should bring all*

all our old Opinions to a fresh Examination, enquire into the Ground of them, and cast off those Judgments which appear to have been formed without sufficient Evidence. This indeed cannot be done all at once, and few People have either Time or Capacity to take such a Review of their Opinions ; but so far as we are able it should be done by prudent Steps and Degrees, till our Principles are reformed, or at least established upon juster Foundations.

DIRECT. II. *We should endeavour to have clear, compleat, comprehensive, extensive, and orderly Ideas of those Objects upon which we pass any Judgment, so far as we have Occasion to judge concerning them, and as our imperfect Knowledge of Things will admit.* This Direction is not to be strictly observed in Matters of Testimony, wherein it is not absolutely necessary to have clear and distinct

distinct Ideas of what is proposed to our Belief, provided we have sufficient Evidence of the Credibility of the Proposer.

DIRECT. III. *Compare the Ideas of a Proposition with the utmost Attention, and observe how far they agree, and wherein they differ.* But in making this Comparison between the Ideas of the Subject and the Predicate, take heed that you neither add to nor diminish them.

DIRECT. IV. *Search diligently and honestly for Evidence of Truth, and be ready to receive it on which Side soever it appears.* Take great Care that your Wishes or Inclinations do not pervert your Judgment.

DIRECT. V. *Suspend your Judgment, and neither affirm nor deny without sufficient Evidence.* It is more particularly necessary to observe this Direction, when the Propositions to be examined

examined are supported by *Education*, *Authority*, *Interest*, or any other powerful Prejudice.

DIRECT. VI. *Judge of every Proposition by the proper Medium or Means whereby its Evidence is to be obtained.* That is, if we judge of Sounds, Colours, or any other Objects of Sense, we must 'do it by the Use of our Senses : If we judge of the Nature of Spirits, their Powers and Perceptions, we must apply to our Consciousness of what passes within our own Mind : If we judge of Matters done in past Ages, or in distant Countries, we must have Recourse to the Testimony of others.

DIRECT. VII. *We should have some general Principles of Truth settled in our Minds, that they may always be ready to assist us in forming our Judgments of other*

other Things whose Evidence is less obvious.

DIRECT. VIII. The Degrees of our Assent should always bear an exact Proportion to the different Degrees of Evidence. This will secure us from many Mistakes both in Speculation and Practice.

DIRECT. IX. Our Minds should be always open to receive the Truth; nor should we ever think ourselves too wise to be instructed. Let us part with the oldest and most favourite Opinions for the sake of Truth, and remember that our Knowledge is always capable of Improvement.

P A R T

P A R T III.

Of REASONING.

Q. **W**HAT is meant by REASONING, which is the third Part of *Logic* ?

A. It has been shewn that the *first* Operation of the Mind is PERCEPTION, whereby our Ideas are framed; and that the *second* is JUDGMENT, which joins or disjoins our Ideas, and forms a *Proposition*. We now come to the *third* Work of the Mind, called REASONING or *Argumentation*, whereby several Propositions are joined together, to form an *Argument* or *Syllogism*.

C H A P.

C H A P. I.

*Of the Nature of a SYLLOGISM, and
the Parts of which it is composed.*

Q. **W**HAT is a *Syllogism*?

A. It is *an Argument, or Form of Reasoning, whereby we infer something that is less known from Truths, which are more evident.* Or, it is *an Argument consisting of three Propositions, disposed in such a Manner, as that the last is necessarily inferred from the two former*; so that if the first and second Propositions be granted, the Conclusion must be granted also. This will easily be understood by the following Example:

Our Creator must be worshipped.

God is our Creator.

Therefore God must be worshipped.

Q. **W**hat

Q. What is to be considered in the Constitution of a Syllogism?

A. The *Matter* and the *Form*.

Q. What is meant by the **MATTER** of a Syllogism?

A. The *Matter* is the *three Propositions* of which it is composed; and these are made up of *three Terms* or Ideas. The Terms are called the *remote Matter*, and the Proposition the *immediate Matter* of a Syllogism.

Q. What are the Names of the several *Terms*?

A. They are called the *Major*, the *Minor*, and the *Middle*. The *Major* or *Greater Term* is the *Predicate* of the *Conclusion*; the *Minor* or *Lesser Term* is the *Subject*, and these are called *Extremes*. The *Middle Term* is one chosen at Pleasure, and so disposed in two Propositions, as to shew the *Agreement* or *Disagreement* between

tween the *Major* and *Minor* Terms in the Conclusion; and therefore the *Middle Term* is sometimes called the *Argument*.

Q. What are the Names of the *Propositions* in a Syllogism?

A. The first is usually called the *Major*, wherein the Middle Term is connected with the Predicate of the Conclusion: The second is called the *Minor*, (and sometimes the *Assumption*) wherein the Subject of the Conclusion is connected with the Middle Term. These Propositions have the Name of *Premisses*; and the third, which is drawn from them, is the *Conclusion*.

Q. What is the FORM of a Syllogism?

A. It is the framing and disposing the Premisses justly, and from thence drawing a regular Conclusion or Inference. This Inference is generally expressed by the

K Particle

Particle *Therefore*, or the *Latin Word Erga*, (which is of the same Signification) when the Argument is formed according to the Rules of Art: But in common Discourse or Writing, the Particles *for*, *because*, &c. shew the Act of Reasoning, or inferring one Thing from another, as well as *then* and *therefore*; and when such Words are used, a Syllogism is expressed or implied, though perhaps the three Propositions are not disposed in a regular Form.

C H A P. II.

Of the various Kinds of Syllogisms,

Q. **I**NTO how many Kinds are Syllogisms distinguished?

A: They

A. They are distinguished into several Kinds, either according to the *Question* to be proved, their *Nature* and *Composition*, or the *middle Term* which is used to prove a *Question*:

Q. How are they distinguished in respect of the *QUESTION* to be proved?

A. Into *Universal Affirmative*, *Universal Negative*, *Particular Affirmative*, and *Particular Negative*. This is sometimes called a Division of Syllogisms according to the *Conclusion*; for there may be so many Sorts of Conclusions, denoted by the Letters A, E, I, O, as may be seen in *Chap. III.* of the second Part of this Treatise.

Q. How are Syllogisms distinguished with respect to their *NATURE* and *COMPOSITION*?

A. Into *Single* and *Compound*. A *Single* Syllogism is made up of three
K 2 Propo-

Propositions: A Compound Syllogism contains more than three, and may be formed into two or more Syllogisms.

Q. Are not *Single Syllogisms* subdivided into several Sorts?

A. Yes, into *Simple, Complex, and Conjunctive.*

Q. What is a *Simple Syllogism*?

A. Those properly called *Simple Syllogisms* are composed of three *plain, single, or categorical Propositions*, wherein the Middle Term is evidently joined with one Part of the *Question* in the Major Proposition, and with the other in the Minor, from whence a plain and single Conclusion is naturally drawn. Such is the Syllogism in the foregoing Chapter.

Q. Which are the Rules relating to the Formation of *simple Syllogisms*?

A. They

A. They are these. 1. The Middle Term must not be taken twice particularly, but once at least universally. 2. The Terms in the Conclusion must never be taken more universally than they are in the Premisses. 3. A negative Conclusion cannot be proved by two affirmative Premisses. 4. If one of the Premisses be negative, the Conclusion must be negative. 5. If either of the Premisses be particular, the Conclusion must also be particular. 6. No Conclusion can be drawn from two negative Premisses. 7. Nor can any Thing be concluded from two particular Premisses.

Here it is proper to take some Notice of the various *Moods* and *Figures* of Simple Syllogisms, which have been invented by Logicians, and about which they have spent a great deal of Time and Paper; for though the Light of Nature and a good Judgment contribute more to true Reasoning than all

these scholastic Subtleties, yet in some Cases they may have their Use, and therefore we shall briefly explain them.

Q. What is the *Figure* of a Syllogism?

A. It is the proper Disposition of the *Middle Term* with regard to the *Extremes*, or Parts of the Question.

Q. What is the *Mood* of a Syllogism?

A. It is a proper Disposition of the *Propositions* according to their *Quantity* and *Quality*, that is, their *universal* or *particular* *Affirmation* or *Negation*. The several Moods of *Syllogisms* have certain and artificial Names given them by Logicians, wherein the *Consonants* are neglected, and only the *Vowels* A, E, I, O, regarded, which denote the *Quantity* and *Quality* of the *Propositions*.

Q. How many *Figures* are there?

A. There are usually reckoned *three*, though some add a *Fourth*.

Q. How is the *Middle Term* disposed of in these Figures?

A. In the *first* Figure the Middle Term is the Subject of the Major Proposition, and the Predicate of the Minor. In the *second* the Middle Term is the Predicate of both the Premisses. In the *third* it is the Subject of both the Premisses.

Q. How many *Moods* does the *first Figure* contain?

A. *Four*, whose Names are *Barbara*, *Celarent*, *Darii*, and *Ferio*; of which the following are Examples:

B A R - *Every wicked Man is miserable.*

B A - *All Tyrants are wicked Men.*

R A . *Therefore all Tyrants are miserable.*

Cz- They who neglect their Duty
are not wise.

LA- Idle Boys neglect their
Duty.

RENT. Therefore idle Boys are not
wise.

DA- They who please God are
happy.

RI- Some poor Men please God.

∴ Therefore some poor Men are
happy.

FE- Disobedient Children are not
Blessings.

RI- Some Children are disobe-
dient.

∴ Therefore some Children are
not Blessings.

Q. How many Moods are there in
the second Figure?

A. Four,

A. *Four, the Names whereof are Cesare, Camestres, Festino, and Baroco, of which take these Examples.*

CE- *No Liar is fit to be believed.*

SM- *Every good Christian is fit to be believed.*

RE. *Therefore no good Christian is a Liar.*

CA- *All pious Men deserve Esteem.*

MES- *No Robbers deserve Esteem.*

TRES. *Therefore no Robbers are pious Men.*

FE- *No Sin is excusable.*

STI- *Some Faults are excusable.*

NO. *Therefore some Faults are not Sins.*

BA-

BA- *Every Part of Religion is rational.*

RO- *Some Doctrines are not rational.*

EO. *Therefore some Doctrines are no Part of Religion.*

Q. How many *Moods* are there in the *third Figure*.

A. Six, the Names of which are *Darapti*, *Felapton*, *Disamis*, *Datisi*, *Bocardo*, and *Ferison*. Examples of each follow.

DA- *All good Christians shall be saved.*

RAP- *All good Christians have sinned.*

TI. *Therefore some who have sinned shall be saved.*

Fig.

F - *No Hypocrites are pleasing to God.*

L - *All Hypocrites appear to be religious.*

T - *Therefore some who appear to be religious are not pleasing to God.*

D - *Some Men are honourable.*

A - *All Men have their Imperfections.*

M - *Therefore some who have Imperfections are honourable.*

D - *All virtuous Men are happy.*

T - *Some virtuous Men are Beggars.*

S - *Therefore some Beggars are happy.*

Bo- *Some Wars are not to be avoided.*

CAR- *All Wars produce Bloodshed.*

DO. *Therefore some Bloodshed is not to be avoided.*

FE- *No Afflictions are pleasant.*

RI- *Some Afflictions are good for us.*

SON. *Therefore some Things that are good for us are not pleasant.*

Q. What are the *special Rules* of these Figures?

A. In the *first*, the Major Proposition must always be universal, and the Minor Affirmative; but it admits of all Sorts of Conclusions, whether universal or particular, affirmative or negative.—In the *second*, the Major must also be universal; and one of

the

the Premisses, with the Conclusion, always negative,—In the *third*, the Minor must be affirmative, and the Conclusion always particular.

Q. How is the *Middle Term* placed in the *fourth Figure*?

A. It is the Predicate in the Major Proposition, and the Subject in the Minor; but this is such an indirect Way of drawing a Conclusion, that it may be looked upon as useless, and is not worth explaining by Examples.

Q. What is a *Complex Syllogism*?

A. Those Syllogisms are called *Complex*, wherein the *Middle Term* is not connected with the *whole Predicate*, or the *whole Subject*, in two distinct Propositions, but is intermixed and compared with them by Parts, or in a confused Manner, and in different Forms of Speech. For Example:

The

The Devil is a wicked Spirit.

Some Indians worship the Devil.

Therefore some Indians worship a wicked Spirit.

In this Syllogism the Predicate of the Conclusion is *worship a wicked Spirit* : Part of which is joined with the Middle Term *Devil* in the Major Proposition, and the other Part in the Minor. This is reduced to a simple Syllogism, in the Mood *Darii*, stands thus :

The Devil is a wicked Spirit.

What some Indians worship is the Devil.

Therefore what some Indians worship is a wicked Spirit.

But the conclusive Force of this Syllogism was evident enough without such Reduction : And the same may be

be said of a vast Number of other Arguments used in the Writings of learned Men, as well as in common Conversation, it often appearing plainly that the Inference is just and true, though the Form of the Syllogism is irregular and confused.

Q. What is a *Conjunctive Syllogism*?

A. It is one whose Major Proposition has *distinct Parts*, which are joined by a Conjunction, or some such Particle of Speech. These Syllogisms are of various Kinds, but the chief of them are *four*, viz. the *Conditional*, the *Disjunctive*, the *Relative*, and the *Connective*; which the following Examples will explain.

1. A. *Conditional* or *Hypothetical Syllogism* is that whose Major or Minor, or both, are conditional Propositions;

as,

If

If there be a God, the World is governed by Providence.

But there is a God.

Therefore the World is governed by Providence.

Here the Antecedent is asserted in the Minor, that the Consequent may be asserted in the Conclusion; which is called *arguing from the Position of the Antecedent to the Position of the Consequent*.—Again:

If the Sun shines, it is Day.

But it is not Day.

Therefore the Sun does not shine.

Here the Consequent is contradicted in the Minor Proposition, that the Antecedent may be contradicted in the Conclusion; which is called *arguing from the removing of the Consequent to the removing of the Antecedent*.

2. A. *Disjunctive Syllogism* is when the Major Proposition is Disjunctive, being connected by the Particles *or*, *either*, &c. as in the following Instances :

We either desire to be happy or miserable.

But we do not desire to be miserable.

Therefore we desire to be happy.

This Kind of Syllogism may have many Parts or Members ; as,

It is either Spring, Summer, Autumn, or Winter.

But it is neither Spring, Summer, nor Autumn.

Therefore it is Winter.

3. A *Relative Syllogism* is when the Major Proposition is relative ; as,

L

Where

Where the Treasure is, there is the Heart.

But a Miser's Treasure is in his Bags.

Therefore his Heart is there also.

Or, A Saint's Treasure is in Heaven ;
Therefore his Heart is in Heaven also.

To this Head may be referred those Syllogisms that relate to *Proportion* ; as,

As three are to Six, so are four to eight.

But Three make the Half of Six.

Therefore Four make the Half of Eight.

4. A *Connexive Syllogism* has generally the Parts of the Major joined together by a *Copulative*, and is by some called a *Copulative Syllogism* ; as,

No Man can serve God and Mammon.

But the covetous Man serves Mammon.

Therefore he cannot serve God.

Or, The true Christian serves God.

Therefore he cannot serve Mammon.

N. B. In all Kinds of Conjunctive Syllogisms great Care should be taken that the Major Proposition be true; for upon that depends the whole Force of the Argument. Thus much for *single* Syllogisms.

Q. What are properly called *Compound* Syllogisms?

A. Those which contain more than three Propositions, being made up of *two or more single Syllogisms*, into which they may be resolved. Of these there are several Kinds, the chief whereof

are the *Epichirema*, *Dilemma*, *Profyllogism*, and *Sorites*.

Q. What is an *Epichirema*?

A. A Syllogism which proves the Major or Minor, or both, before it draws the Conclusion; as,

Sickness may be good for us; for it shews us our Frailty, weans us from worldly Enjoyments, and makes us think of dying.

But we are uneasy under Sickness; which we manifest by Complaints, Groanings, &c.

Therefore we are sometimes uneasy under that which is good for us.

Q. What is a *Dilemma*?

A. It is a Sort of Argument wherein the whole is divided into all its Parts or Members, and then something is inferred concerning each Part, which is finally inferred concerning the Whole.

Whole. This Kind of Syllogism is so contrived, that let your Adversary take what Side of the Question he pleases, the Conclusion turns to his Disadvantage. For Example :

In Heaven we shall either have Desires or not.

If we have no Desires, then we shall have full Satisfaction : If we have Desires, they will be satisfied as fast as they arise.

Therefore in Heaven we shall be compleatly satisfied.

A. *Dilemma* may be faulty three Ways: *First*, when the Parts or Members of the Division in the Major are not fully enumerated ; *Secondly*, when what is asserted in the Minor concerning each Part is not true ; *Thirdly*, when the Argument may be retorted with equal Force upon him who uses

it. This last was the Fault of the celebrated Dilemma of *Protagoras*, which he made use of on the following Occasion. *Protagoras* taught *Euathlus* the Art of Pleading, in Consideration of a Sum of Money, which *Euathlus* promised to pay him the first Day that he gained any Cause in Court. After a Time *Protagoras* goes to Law with *Euathlus* for the Money, and argues in this Manner: *Either I shall gain the Cause, or you will gain it. If I gain the Cause, you must pay me according to the Sentence of the Judge: If you gain it, you must pay me according to the Covenant between us. Therefore whether the Cause goes for me or against me, you must pay me the Money.* But *Euathlus* thus retorted the Dilemma upon his Master. *Either I shall gain the Cause, or lose it. If I gain it, nothing will be due to you according to the Sentence: If I lose it, nothing will be due*

to you according to our Covenant. Therefore, let the Cause go which way it will, I shall pay you nothing.

Q. What is a *Prosllogism* ?

A. It is an Argument composed of two Syllogisms, so connected, that the Conclusion of the former is the Major or Minor of the latter; as,

Blood cannot think:

But the Soul of Man thinks;

*Therefore the Soul of Man is not
Blood:*

*But the Soul of a Brute is his
Blood:*

*Therefore the Soul of a Man is
different from the Soul of a
Brute.*

Q. What is a *Sorites* ?

A. It is an Argument wherein several Middle Terms are successively

connected in several Propositions, till the last Proposition connects its Predicate with the Subject of the first.— Such was the merry Argument of *Themistocles*, to prove that his little Son, under ten Years of Age, governed the whole World: *My Son governs his Mother; his Mother me; I the Athenians; the Athenians the rest of Greece; Greece commands Europe; Europe the whole World: therefore my Son governs the whole World.*

In this Place it may not seem improper to add a Syllogism called *Induction*, wherein from several particular Propositions a general one is inferred; as,

Purgatory cannot be proved from the Gospels;

Nor from the Acts of the Apostles;

Nor from the Epistles..

Nor

*Nor from the Book of Revelations :
Therefore it cannot be proved from
the New Testament.*

These Kinds of Syllogisms, which have more than three Propositions, may be called *redundant* ; but there is a *defective* or *imperfective* Kind, called an *Enthymem*, which is the most common Sort of Argument both in Writing and Conversation.

Q. What is an *Enthymem* ?

A. An Argument consisting only of two Propositions, *viz.* the *Conclusion*, and *one* of the *Premisse*., the other being suppressed, as being sufficiently clear and obvious, and easily supplied by the Understanding of Mankind ; as,

*True Religion is accompanied with
good Morals :*

*Therefore a Knave is not truly
religious.*

Q. How are Syllogisms distinguished with respect to the **MIDDLE TERM** ?

A. *Syllogisms* or *Arguments*, (for so they are properly called as we now consider them) are said to be *Grammatical*, *Physical*, *Moral*, *Theological*, &c. according to the Art, Science, or Subject from whence we borrow the *Middle Term*, or *Topic*, which we make use of in the Proof of any Proposition. For Instance, if we endeavour to prove from the Principles of *Reason* and *Equity*, that *no Man should steal his Neighbour's Goods*, the Argument is *Moral*; but if we prove the same Thing from *Scripture*, then it is a *Theological Argument*.

Q. Is this the only Distinction of Arguments with regard to the *Middle Term*?

A. No; in this respect they are distinguished into *Certain* and *Probable*, *Artificial* and *Inartificial*, *Direct* and *Indirect*.

Q. What is the Difference between a *probable* and a *certain Argument*?

A. If I infer that *Thomas* will bring himself to the Gallows, because he commits frequent Robberies on the Highway, this is a *probable* Argument, not a *certain* one, for it is possible he may die a natural Death.

Q. Have *certain* Arguments any other Name?

A. Yes, they are usually called *Demonstrations*, because their Conclusions are founded on clear and undeniable Principles, and they are generally divided into two Sorts: 1. Demonstrations *à priori*, whereby an Effect is proved from a Cause; as, I prove *the Scriptures to be true*, because they were *dictated by the Spirit of God, who cannot lye*. 2. Demonstrations *à posteriori*, whereby a Cause is proved from an Effect; as, when I view a *Watch*, or other *curious Machine*, I conclude *it was made by some Artificer*.—N. B. Though these are

are peculiarly called *Demonstrations*, yet the Name is frequently given to any strong and convincing Argument.

Q. What is an *artificial* Argument?

A. That which is taken from the Nature and Circumstances of Things; and such an Argument, if strong, produces a *natural Certainty*.

Q. What is an *inartificial* Argument?

A. That which is founded on the Testimony of another: And Human Testimony, if strong, produces a *moral Certainty*; but Divine Testimony produces a *supernatural Certainty*, which is of the highest Kind.

Q. What is a *direct* Argument?

A. That wherein the Middle Term proves the Question itself, and infers the Proposition which was the Matter of Enquiry.

Q. What is an *indirect* Argument?

A. An

A. An Argument is said to be *indirect* or *oblique*, when the Truth of the Thing enquired after is made appear by proving or refuting some other Proposition.—*Indirect* Arguments are of several Kinds, *viz.* 1. When any Proposition is proved to be true by shewing the Falsity, Improbability, or Impossibility of some contradictory Proposition and when it is shewn, that if the original Proposition be supposed false, or denied, some great Absurdity will follow. This Logicians call a 'proof *per impossibile*, or a *Reductio ad absurdum*. 2. When some Proposition is proved to be true that is *less probable*, and thence it is inferred that the original Proposition is true because it is *more probable*. This is called an Argument *ex magis probabili ad minus*. 3. When we prove the Truth of any Proposition, upon which our Adversary had before agreed to give

give up the Question. This is called an Argument *ex concessâ*.

Q. Are there any other Arguments which derive their Distinctions from the *Middle Term* ?

A. Yes, several ; whose *Latin Names* it may be proper to mention, and explain, as they are frequently made use of by *English Authors*. 1. An Argument founded on the professed Principles or Opinions of the Person with whom we argue is called *Argumentum ad Hominem*, an Address to our Principles or Professions. 2. An Argument drawn from the Nature or Existence of Things, and addressed to the Reason of Mankind, is called *Argumentum ad Judicium*, an Address to our Judgment. 3. If it be built on some convincing Testimony, it is termed *Argumentum ad Fidem*, an Address to our Faith. 4. If an Argument be weak in itself,

itself, and yet an Adversary is not able to confute or answer it, this is called *Argumentatum ad ignorantiam*, an Address to our *Ignorance*. 5. An Argument suited to engage the Inclinations and Passions, rather than to convince the Judgment, is called *Argumentum ad Passiones*, an Address to our *Passions*. 6. When an Argument is drawn from the Sentiments of some great or learned Man, whose Authority we revere, and are afraid or ashamed to oppose, it is termed *Argumentum ad Verecundiam* an Address to our *Modesty*.

Q. Have you any other Distinction of Arguments to mention?

A. Only one, which arises from the Premisses, according to which an Argument is either *Uniform* or *Mixed*. If both the Premisses are derived from the same Source of Knowledge, whether *Sense*, *Reason*, or any other, an Ar-

Argument is called *uniform*; but if the Premisses are derived from different Springs of Knowledge, it is called a *mixed Argument*.

Having thus given an Account of the chief Kinds of Syllogisms or Arguments made use of in just Reasoning, I now proceed to those called *Sophisms* or *Fallacies*, which appear to be true, but are really false at Bottom, and are invented with a Design to embarrass and deceive.

C H A P. III.

*Of the several Kinds of SOPHISMS,
and the Method of solving them.*

Q. **W**HAT is a *Sophism*?

A. An Argument which carries with it the Face or Appearance

ance of Truth, and yet leads us into Mistake.

Q. How many Kinds of Sophisms are there?

A. They are very numerous, but may all be reduced to some of the following Heads.

1. The first Sort is called by Logicians *Ignoratio Elenchi*, or a *Mistake of the Question*; that is, when something is proved which is neither necessarily connected nor inconsistent with the Thing enquired after. For Instance, if the Question were proposed, *Whether it be hurtful to drink Wine to Excess*; a Sophist might endeavour to prove it not hurtful, by arguing that Wine helps *Digestion*, *raises a Man's Spirits*, *gives him Courage*, *makes him strong, active, and capable of enduring Hardships and Fatigues*: But though all this be granted, it is easy to shew, that the excessive

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Drinking

Drinking of Wine may be very prejudicial to him that drinks it, by bringing on Poverty, Diseases, and Death itself, as well as endangering his Happiness in the World to come.—It is a Fallacy of the same Kind, when a Disputant, finding his Adversary too hard for him, artfully turns the Discourse to some other Point which he can prove, (and which indeed his Opponents never denied) and then triumphs as if he had gained a considerable Advantage.

2. Another Kind of Sophism is called *Petitio Principii*, a *Begging the Question*, or a *Supposition of what is not granted*; that is, when we endeavour to prove any Proposition by something equally uncertain and disputed. Thus a *Papist* pretends to prove his Religion the best, *because it is derived from Christ and his Apostles, and agrees with the Doctrine of the Fathers, and of the Christian Church*.

Church throughout all Ages: Whereas these are contested Points, and what Protestants will by no means grant.

3. A Fallacy of the same Nature with that last mentioned is the *Circle*; which is, when one of the Premisses of a Syllogism is questioned, and we attempt to prove it by the Conclusion; or when in a Train of Syllogisms we prove the last by the Conclusion of the first. Thus the *Papists* pretend to prove the *Scriptures to be true by the Authority of the Church*, and then to shew the *Authority of their Church from the Scriptures*.

4. There is another Kind of Sophism called *non Causa pro Causa*, or *the assigning a false Cause*. Scarce any Thing is more common than this Sort of Fallacy. *Astrology*, or the *Telling of Fortunes* by the various Positions of the Stars and Planets, is built up

M 2 on

on it : And it is a Sophism of this Kind, when Comets, Eclipses, northern Lights or such like Phænomena, are supposed to foretel the Fate of Kings and Kingdoms, Wars, and Famine, and other national Calamities. In the same fallacious Manner weak People are apt to judge of accidental Events : If a Man steals a Horse, and a Twelvemonth afterwards rides a hunting, is thrown off, and has a Leg or an Arm broke, it is presently imputed to the Divine Vengeance on him for the Theft he had committed.

5. The next Sophism, which is akin to the former, and very frequent, is called *Fallacia Accidentis*, wherein, from something merely *accidental* to any Subject, we judge of its *Nature* and *essential Properties*. Thus, because a Neighbour, when over-heated with Exercise, received Injury by drinking ^{too}

too large a Quantity of *cold Water*, we are apt to condemn it as absolutely unwholesome upon all Occasions. So *Wine* has been pronounced an evil Thing, and the Use of it forbidden, because it has been the accidental Cause of Quarrels and Bloodshed.

6. Another Sophism of the same Nature is when we argue from that which is true in *particular Circumstances*, to prove the same Thing true *absolutely* and *simply*, without any Circumstances being considered; as if we should say, *What we buy of the Butcher we eat for Dinner*: But *we buy raw Meat of the Butcher*: therefore *we eat raw Meat for Dinner*.—The Reverse of this Sophism is arguing from what is *simply* and *absolutely* true, to prove the same true in *all particular Circumstances*; as if I should wrest a Sword out of the Hand of an Enemy going to

stab me, and he should argue that *I ought to give it him again*. because *no Man should with-hold another's Property*.

7. We now come to the Sophisms of *Composition* and *Division*, which are the Reverse of each other. When an *Inference* is drawn from Ideas in a *Compound Sense*, which is only true in a *divided one*, this is a Sophism of *Composition*; as if a Man should argue thus: *Two and three are even and odd: Five are two and three: Therefore five are even and odd.* On the contrary, to infer a Thing concerning Ideas in a *divided Sense*, which is only true in a *compound one*, is a Sophism of *Division*; as if I should say, *Five is one Number; Two and three are five: Therefore two and three are one Number.* — A Sophism of the same Kind is sometimes committed by not rightly distinguishing *Between the collective and distributive Sense*

Sense of the Word *All* ; or by making *All* or *No* refer to *Species* in one Proposition, and *Individuals* in another.

8. The Sophisms arising from the *Ambiguity of Words* are more numerous, than those of any other Kind ; and indeed several of the Fallacies already mentioned might be comprehended in this Class. If we make use of Words or Phrases plainly equivocal, it is a *Sophism of Equivocation* ; as if any one should argue thus : *A Church is a Building of Stone : But a religious Assembly is a Church : Therefore a religious Assembly is a Building of Stone.* Here every one sees, that the Word *Church* bears a very different Signification in the *Major Proposition* from what it does in the *Minor*, and therefore the Syllogism proves nothing at all. But we need not enlarge upon this Head, since there is

little Danger of being imposed upon by such gross Equivocations, which a Person of common Sense discovers as soon as they are proposed, though perhaps he cannot shew the Fault of the Syllogism by the Rule of Logic.

Q. But is there no general Test of true Syllogisms, and a Method of solving all sophistical Arguments ?

A. Yes, there are two *general Methods* of reducing all Syllogisms to a Test of their Truth or Falshood.

Q. Which are they ?

A. The first is this : *In a just Syllogism one of the Premisses must contain the Conclusion, and the other must shew the Conclusion to be so contained.* This will appear by considering the following Example : *Whosoever bridles his Passion is wise : But a virtuous Man bridles his Passions : Therefore a virtuous Man is wise.* —

Here

Here it is plain that the *major* Proposition contains the Conclusion, because under the general Character of *one who bridles his Passion*, the *virtuous Man* is undoubtedly included. This is shewn or declared in the *minor* Proposition ; and thence the Conclusion is evidently deduced, that *a virtuous Man is wise*.—
N. B. It is not always necessary that the *major* Proposition should contain the Conclusion ; in some Syllogisms the *minor* contains it, and the *major* shews it.

The second general Test of Syllogisms is this : *As the Terms in a Syllogism are usually repeated twice, so they must be taken precisely in the same Sense in both Places.* It is generally some Difference in the Sense of one of the Terms in the two Parts of a Syllogism that renders it inclusive and fallacious, as appears by considering the following Sophisms. 1. *Nothing is better than Heaven :*

Heaven: But a Penny is better than nothing : Therefore a Penny is better than Heaven. This Sophism is evidently founded on the different Significations of the Term *Nothing*, it being used in a *positive Sense* in the first Proposition but in a quite opposite or *negative Sense* in the second. 2. *It is a Sin to kill a Man: But a Murderer is a Man: Therefore it is a Sin to kill a Murderer.* Here the Sophism lies in the different Senfes of the Word *kill*; it being used in the first Proposition to signify *killing unjustly, or without a Law*; and being taken absolutely in the Conclusion for *putting a Man to Death in general.*

Thus much for the various Kinds of Sophisms.—I shall conclude this Part of Logic with some general Rules to assist our *reasoning Powers* in their Enquiry after Truth.

C H A P. IV.

General Rules to direct our REASONING.

Q. **W**HICH are the best Rules to direct us how to *reason* well?

A. The Directions given in the preceding Part of Logic to form our *Judgments* aright will also be of Service to direct our *Reasoning*; but we may draw some farther Assistance in this Respect from a careful Observation of the following Rules.

R U L E I. *We should accustom ourselves, even in our younger Years, to clear and distinct Ideas, to evident Propositions, and to strong and convincing Arguments.*
 A Habit of conceiving clearly, and reasoning strongly, is not to be attained by a set of logical Precepts, a Happiness of Constitution, or a Brightness of Genius: Such a Habit must be formed and estab-

Established by Custom and Practice, which therefore we should begin in the early Part of our Life.

RULE II. Endeavour to enlarge your general Acquaintance with Things, in order to furnish yourself with Plenty of Topics, or Middle Terms, to make use of in your Syllogisms; and diligently search into and consider the Nature, Properties, Circumstances and Relations of the particular Subject about which you are arguing or judging. The most extensive Survey possible of our whole Subject is the best Security against Inconsistencies; for it is the arguing upon a partial View of Things that leads us into frequent Mistakes and Absurdities.

RULE III. While you are arguing upon any Subject, be sure to keep the precise Point of the Question always in View; but neither add to it, nor omit any Part of it. By thus keeping to the simple Matter

Matter of Enquiry, you will be secured from impertinent Answers and rash Determinations.

R U L E IV. *Having well considered what is unknown in the Question, then consider how much you know of it already, or of the Ideas and Terms whereof it is composed.* By comparing the known and unknown Parts of a Question together, we find what Connection they have with each other ; and the Ideas by which they are connected will furnish us with Arguments : But when we make this Comparison, we must take Care not to be too hasty in determining, especially in Matters of Importance, lest our Conclusions should be Fancy instead of real Truth.

R U L E V. *In chusing our Arguments, we should always take such as are surest, and carry with them the greatest Evidence.* Remember that it is the Weight of Arguments, not their Number, which

is chiefly to be regarded, especially when the Thing to be proved admits of *natural Certainty* and *Demonstration*: But in Cases where we cannot go beyond *Probability* or *moral Certainty*, the Number of Arguments increases the Degree of Probability, and gives us a greater Assurance of the Truth of what is proposed.

R U L E VI. *If we are to prove any Conclusion we have made, we should do it (as far as possible) by Propositions that are still more plain and certain, at least more known and inadmissible to the Person whom we are endeavouring to convince.* The Reason of this is evident; for every one sees the Folly of attempting to explain one Obscurity by another, or to confirm what is doubtful by something equally, or more uncertain.

R U L E VII. *Let your Arguments tend to enlighten the Understanding, as well as*

to captivate the Judgment. That is, let them not only force the Assent, but also illustrate the Point in Question, so as make it better understood.

R U L E VIII. *Take Care to distinguish between an Explication and an Argument, between a mere Illustration and a solid Proof.* Proper Similes and Allegories are often useful in explaining and giving Light to a Subject, but we should not mistake them for conclusive Arguments.

R U L E IX. *In all our Reasonings let us pursue Truth with Sincerity, and follow it wheresoever it leads.* In our Search after true Knowledge we should not be diverted or influenced by any Passion or Prejudice; nor should we determine on either Side of a Question, till we have well weighed the Arguments and Objections on both.

P A R T

P A R T. IV.

Of DISPOSITION, or METHOD.

Q. **W**HAT is meant by DISPOSITION, the Fourth Part of *Logic*?

A. *Disposition*, or the *Art* of Method, is the *Ranging a Variety of Thoughts on any Subject in such an Order as is fittest to gain the clearest Knowledge of it, to retain it longest, and to explain it to others in the best Manner*. Or, it is the *Dispositioning our Thoughts in such Order as to be most easily conceived and remembered by ourselves and others*.

Q. What Inconveniences arise from the Want of *Method*?

A. Without it, Confusion, Darkness, and Mistake will unavoidably attend our Thoughts and Discourses.

C H A P.

C H A P. I.

Of the several Kinds of Method.

Q. **H**OW many Kinds of *Method* are there?

A. Method is distinguished into two general Kinds, viz. *Natural* and *Arbitrary*.

Q. What is *Natural Method*?

A. It is that which observes the Order of *Nature*, and proceeds in such a Manner, as that the Knowledge of the Things which follow depends in a great Measure on the Things which go before.

Q. Is not this Method twofold?

A. Yes, it is either *Analytic* or *Synthetic*.

Q. What is the *Analytic Method*?

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A. The *Analytic* Method, or Method of Resolution, is what we generally use in our Enquiries after Truth. It begins with the *whole Compound*, and then leads us into a more perfect Knowledge of it, by *resolving* it into its *first Principles* or *Parts*, and shewing its *Nature* and *Properties*. Thus we are first acquainted with the *whole Body* of an Animal, and afterwards come to the Knowledge of its several *Parts* by *Anatomy* or *Dissection*.

Q. What is *Synthetic* Method?

A. The *Synthetic* Method, or Method of *Composition*, is that whereby Truth, when discovered, is usually taught or imparted to others. This begins with the *Parts*, and so leads on to the Knowledge of the *Whole*; it proceeds gradually from the *most simple Principles*, to that which is *drawn from*, or *compounded* of them. Thus

Thus having learnt the *Letters* of the Alphabet, we join them to make *Syllables*, of Syllables we compose *Words*, and of Words we make *Sentences* and *Discourses*.

Q. How do you farther explain the Difference of these two Methods?

A. They differ from each other as a Way which *leads up* from a Valley to a Mountain differs from itself, when considered as *leading down* from the Mountain to the Valley. The one is like tracing a Genealogy by *descending* from the Ancestors to the Posterity; the other like the contrary Method of *ascending* from the Posterity to the Ancestors. Thus the Difference between the *Synthetic* and *Analytic* Method is plain and obvious; but as the Subjects of Knowledge are infinite, and the Ways of obtaining it almost infinitely various, the precise

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Distinctions between these two Methods cannot always be maintained; and in many Cases they are mixed together, and both employed in searching after and communicating Truth. Upon the whole, neither of these Methods should be too scrupulously observed, either in our Investigation of Truth, or the Communication of it to others: It is sufficient, if we so far keep to the Order of Nature, as to make the Knowledge of Things following depend on the Knowledge of those that go before. A *mixed Method* will sometimes answer these Purposes most effectually; and indeed all Method whatsoever must be regulated by a judicious View of, and Attention to our chief End and Design.

Q. What is meant by *Arbitrary Method*?

A. It

A. It is that which leaves the Order of Nature, and is not confined to any certain Forms but accommodates itself by various Purposes: whether it be to assist the Memory, to persuade, delight, or amuse the Reader or Hearer. This Kind of Method is chiefly used by *Orators* and *Poets*, who sometimes omit Things essential to the Subject which they apprehend would be displeasing, and run into beautiful Diversions or needless Circumstances, which have little Relation to the Point in Hand, but are adapted to allure and entertain the Mind. In a Word, they artfully invert the Order of Times and Actions, placing the first last, and the last first; and so manage it as to set every Thing in the most affecting Light, and thus captivate the Senses and Passions of Mankind.

C H A P. II.

The Rules of Method.

Q. **W**HICH are the best Rules to be observed in *Natural Method*?

A. The most important Rules of true *Method*, whether *Analytic* or *Synthetic*, are the following.

R U L E I. *Good Methods should be safe and secure from Error.* To this End our fundamental Propositions must be well-grounded, our Arguments strong, and drawn up with so much Caution, as to prevent (if possible) all Objections.

R U L E II. *Our Method should be plain and easy, that it may exhibit a clear and comprehensive View of the whole Design.* In order to this we must begin with Things that are most known and obvious, and proceed

by

by gentle Steps to Things that are unknown and difficult; always endeavouring to express our Conceptions in a clear and easy Manner. We should not be over-hasty either in Learning or Teaching, not fond of crowding too many Thoughts into a little Compass, or of running into numerous Subdivisions.

RULE III. Our Method should be distinct, and free from any Mixture that might introduce Perplexity and Confusion. No Arguments must be used that are entirely foreign to the Subject; every Idea must be divided into its Parts, as far as is requisite to the present Design; every Argument must be ranged in its proper Class; and in the Partition of a Discourse we should take care that particular Heads do not interfere with the general, nor with each other.

RULE IV. *Good Method should be full, so that nothing may be wanting that is necessary or proper.* In explaining a Subject we should not skip over what is difficult or obscure; nor be deficient in enumerating its Parts or Properties. In illustrating a difficult Point we should not be sparing of Words, but rather diffusive; and in a Narrative we should omit no important Circumstance. By *Fulness of Method*, however, is not meant that every Thing should be said that can be said upon any Subject, but only what is necessary, or has a direct Tendency to the Design in View.

RULE V. *Our Method should be brief, (so far as is consistent with the foregoing Rule) and free from every Thing superfluous and impertinent.* To this end we must guard against a tedious Prolixity, avoid needless Repetitions, Explications where there is

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no Obscurity, Proofs and Refutations where the Case requires none, useless Formalities, and long or frequent Diversions. In short, there is a true Medium to be observed in our Method, so that our Brevity may not render us obscure, nor our Copiousness tedious and trifling.

RULE VI. *We must adapt our Method to the Subject it hand, to our present Design, and to the Age and Place we live in.* All Subjects are not to be handled in the same Method; as if we treat the same Subject with different Views, we shall find it necessary to use different Methods. Some little Deference must likewise be paid to the Custom of the Age, and to the Humour and Genius of our Readers or Hearers; though we must by no means suffer ourselves to be so far influenced thereby, as to neglect those Rules

Rules of Method which are absolutely necessary to find out Truth, or communicate it to others.

R U L E VII. *Good Method requires that the Parts of a Discourse should be well connected.* In order to this, we must always keep our main Design in View, and let every Particular (as far as possible) have a visible Tendency towards it. The mutual Relation and Dependance of the several Parts of a Discourse should be so just and evident, that each may naturally lead on to the next, and be joined to it by some proper and graceful Form of Transition.

We are now come to the End of our little Treatise of LOGIC, which we have endeavoured to render as complete as our narrow Limits would permit; But we think it will neither be

be impertinent, nor unserviceable to the young Scholar, to add here (by way of Supplement) some short Account of the *Academic* and *Socratic Methods of Disputation.*

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S U P P L E M E N T

T O T H E

A R T o F L O G I C.

C H A P. I.

O F A C A D E M I C o R S C H O L A S T I C
D I S P U T A T I O N .

Q. **W**HAT do you mean by the
Academic Method of *Dis-
putation*?

A. I mean the Method in which
Disputes are usually managed in *Aca-
demies or Schools of Learning*.

Q. In

Q: In what Manner is this done?

A. First of all the *Tutor* appoints a *Question* in some of the Sciences, to be debated amongst his Students; one of whom undertakes the *affirmative* or *negative* Side of the *Question*, and is to defend his Assertion or Negation, and to answer all Objections against it. Hence he is called the *Respondent*; and his Fellow Students, who are appointed to raise Objections and carry on the Disputes against him, are called the *Opponents*.

Before the Time appointed for this Exercise, the *Respondent* writes a *Thesis*, or short Discourse on the *Question* proposed, which he reads at the Beginning of the Dispute. In this Discourse he explains and fixes the Sense of the Terms of the *Question*, declares its true Intent and Meaning, and separates and distinguishes it from those with which it has

has been complicated, or to which it happens to be related. This done, he *affirms* or *denies* it, according to the Opinion of the Tutor, which is supposed to be the Truth.—In the second Part of this Discourse he produces his strongest Arguments in Defence of his own Side of the Question, and then leaves the other Students to object against it.

The *Respondent* having read over his *Thesis*, the youngest Student makes an Objection, which he draws up, in the Form of a Syllogism. This Objection is repeated by the *Respondent*, who either denies one of the Premises directly, or distinguishes upon some Expression in the *Major* or *Minor*, shewing in what Sense the Proposition may be true, but denying it to be true in the Sense which affects the Question in Dispute.

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The Opponent then proceeds by another Syllogism to vindicate the Proposition which the Respondent denied; and the Respondent again answers either by denying or distinguishing: And thus the Disputation is carried on by successive Syllogisms and Answers, till the Opponent has no more to say.

The first being silenced, the *next Student* proposes his Objection; then the *third, fourth, fifth, and so each in his Turn according to Seniority, till it comes to the oldest Student, who is the last Opponent.*

During this Time the Tutor sits in a Chair as *President* or *Moderator*, whose Business is to see that the Rules of Disputation and Decency are observed on both Sides, and to admonish those who are guilty of any Irregularity. He is also to explain, strengthen, or correct the *Respondent's* Answers

as he finds Occasion ; and if the *Respondent* be at a Loss, he assists him by suggesting some Answer to his *Opponent's* Objection. But this is not done in publick Disputes, where the *Disputants* chuse their own Side of the Question ; for in such Cases the *Moderator* neither favours the *Respondent* nor *Opponent*, but only takes care that they observe the Laws of Disputation.

Q. Which are the *Laws of Disputation* ?

A. The Laws to be observed by the *Opponent* are these which follow : 1. He must directly contradict the *Respondent's* Proposition, and not merely attempt to confute the Arguments by which it is supported. 2. He must contradict the Proposition as the *Respondent* has stated it, and not in any other Sense. 3. His Arguments must be proposed in the Form of a Syllogism,

gism, agreeable to the Rules of *Logic*, and without any Fallacy whatsoever. 4. It is best for the *Opponent* to draw his Objections from the Nature of the Question itself, tho' it is also allowable for him to attack the *Respondent* by *indirect* Arguments. 5. If the *Respondent* denies any Proposition, the *Opponent* must directly defend it, by making it the Conclusion of his next Syllogism. 6. When the *Respondent* limits or distinguishes any Proposition, the *Opponent* must directly prove it in that very Sense wherein the *Respondent* denied it.

Q. Which are the Laws that oblige the *Respondent*?

A. They are these. 1. He must repeat the *Opponent's* Argument before he attempts to answer it. 2. If a Syllogism be faulty in its *Form*, he must shew where the Fault lies according to the

Q

Rules

Rules of *Logic*. 3. If the *Matter* of an Objection be faulty in any Part of it, he must grant what is true in it, and deny what is false. 4. If his *Opponent's Argument* does not directly affect his *Proposition*, he must expose its Weakness, by shewing it might be admitted without any Prejudice to his own *Thesis*. 5. If an *hypothetical Proposition* be false, he must deny the *Consequence*; if a *disjunctive* one, he must deny the *Disjunction*, &c. 6. After the *Respondent* has answered directly, he is sometimes permitted to answer indirectly; and also to shew how the *Opponent's Argument* may be retorted upon himself.

Q. Which are the Laws that oblige both *Respondent* and *Opponent*?

A. These that follow. 1. Certain general Principles, relating to the Question, should be first agreed on by both the Disputants. 2. When the State

State of the Controversy is well known and determined, neither of them must alter it in the Course of the Disputation. 3. Neither of the Disputants should invade the Province of the other. 4. The one should not interrupt the other, but wait patiently till he has done speaking.

Q. What *Advantages* are to be gained by this Sort of Disputation?

A. It gives a proper Degree of Courage to those who are too modest and distrustful of their own Abilities, and procures a Freedom and Readiness of Speech. It makes a Student more expert in vindicating Truth and refuting Error; in warding off Objections, and discovering the subtil Arts of Sophisters. In a Word, it gives Vigour and Briskness to the Mind, makes the Thoughts active, sharpens

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the Wit ; and quickens all the Powers of Invention.

Q. Are there no *Inconveniences* arising from Scholastic Disputation ?

A. Yes, some very great ones ; for Experience shews, that by a Habit of disputing many young Students grow impudent, proud, unreasonably talkative, obstinate in maintaining their own Assertions, and ready to contradict almost every Thing asserted by others. It is also plain by this Sort of Exercises, wherein the same Persons are sometimes on the Side of Truth and sometimes against it, the Mind becomes insensibly wavering and unsettled, and is in danger of falling into a *sceptical* or *doubting* Humour. Add to this, that in Scholastic Disputations the *Opponents*, being all warmly employed in finding Arguments against the Truth, if one of them happens to invent a plausible Sophism, and manage

manage it so as to puzzle the *Respondent*, and perhaps the *Moderator* himself, he is tempted to suppose his Argument unanswerable, and so his Sentiments become engaged in Favour of Error instead of Truth, which last is supposed to be maintained by the *Respondent*.

Q. Which are the best Means to prevent these Inconveniences ?

A. The Observation of the following Directions in Scholastic Disputes may be of some Service to prevent the ill Consequences that too often attend them.

1. Never dispute about Things not worth the knowing, but upon useful Subjects.
2. Dispute not about Matters beyond the Reach of human Capacity, or about Words without Ideas.
3. Let not obvious and known Truths be brought into Dispute, merely to try the Skill of the Disputants.
4. To find out Truth should be the End of

Disputation, not a Desire of Glory or Triumph over an Adversary. 5. Let not the *Respondent* endeavour to avoid the Force of his *Opponent's* Objections ; nor let the *Opponent* study to darken and confound the Answers of the *Respondent*. 6. To this End let both of them express their Thoughts as clearly and distinctly as possible, and be as brief as is consistent with Perspicuity. 7. They ought not to indulge Ridicule, nor use Jeasts or Witticisms, especially if the Subject be serious or divine. 8. They should abstain from all Sarcasm, Reproach, personal Scandal, and insolent Language. 9. When the Truth evidently appears on either Side, let them readily yield to Conviction ; but let not the Victor, (whether it be *Respondent* or *Opponent*) triumph or insult over his vanquished Adversary.

C H A P.

C H A P. II.

Of the SOCRATIC Method of DISPUTATION.

Q. **W**HAT is meant by the *Socractic Method of Disputation*?

A. It is a Method which derives its Name from *Socrates*, an ancient Athenian Philosopher, by whom it was practised, and by other Philosophers in his Time, long before *Aristotle* invented the *Forms of Syllogism in Mood and Figure*, now used in *Scholastic Disputations*.

Q. How is a Dispute carried on in the *Socratic Manner*?

A. By Way of *Question* and *Answer*, representing the Form of a *Dialogue* or *common Conversation*, wherein the Person who instructs seems to be the *Enquirer*, and seeks *Information*

from him who is instructed. If the Person with whom we argue makes use of obscure or ambiguous Words, we must ask him to *explain his Meaning*; for it often happens, that Men have accustomed themselves to some Words or Phrases whith they do not perfectly understand; and then by a few modest Questions they will much better discover their Ignorance, than by a direct Opposition, which often raises the Passions, and shuts a Door against Conviction. When we have gone thus far, if the Person be a sincere Lover of Truth, he will presently acknowledge that he did not sufficiently understand the Matter, and then the Dispute is at an End: But if he is obstinate, and will obtrude his Words upon us without defining them, we ought to proceed no farther till he has satisfied us what he means. We must press him with little Questions,

tions, as if we were dull of Appre-
hension, and should be glad to un-
derstand him better: But if we can by
no means prevail with him to speak
plainly, it is time to put an End to the
Dispute; since it is evident he knows
not wha the would be at, or has a Mind
to wrangle. If at last we bring him to
declare his Meaning clearly, we then
proceed to ask him Questions upon the
several Parts of the Doctrine he advan-
ces, and their Consequences; not as
objecting against them, but for the
Sake of better Information. From
these Questions, if proposed with Dex-
terity, it will easily appear whether the
Doctrine be absurd or not, and to make
the Matter still clearer, it will be pro-
per to use Examples and Similitudes:
But if this be not sufficient to shew the
Falsity of the Opinion, we must en-
quire of the Person on what *Argu-
ments*

ments or Proofs he grounds it ; and then pursue the same Conduct as we did in the first Part of the Dispute. Thus the Learner will be led into the Knowledge of Truth as it were by his own Invention ; and being drawn by a Series of pertinent Questions to discern his Mistakes, he will more easily be induced to relinquish them, as he seems to have discovered them himself.

Q. Can't you give me an Example or two of this Method of Disputation ?

A. Yes ; we will suppose two Persons (*M.* and *N.*) disputing upon the *Efficacy of the Divine Providence* with respect to the Actions of Men.

M. You say that God has an *efficacious Operation in the Sins of Men* : Do you mean that he *makes Sin* ?

N. Far be it from me, for then God would be the *Author of Sin*.

M. Do.

M. Do you mean that God forces Men to commit Sin?

N. No, the Expression is too harsh; but God in an unknown and secret Manner so permits Sin, that it must necessarily be committed.

M. At first you used the Word Operation, now you use permit; pray do they signify the same Thing?

N. They do not absolutely mean the same Thing; but they must be joined together, so that what God does should be called an efficacious Permission; for God neither makes Sin, nor does he simply permit it.

M. Then you mean that God permits something, and does something, so that Sin necessarily follows.

N. You have hit my Meaning.

M. Perhaps therefore God does in this Case what a Man does who cuts down a Dike, and lets the Sea overflow

flow the Fields ; for he *does* something in breaking the Dike, and *permits* something in letting the Water run through the Breach.

N. The Similitude expresses my Opinion very exactly.

M. But pray who blames the Sea or the Dike for this Inundation ? And, if I mistake not, Man is no more to be blamed when he commits Sin, (according to your Doctrine) than the Sea or the Dike.

N. You do not observe the vast Difference there is between the Things themselves : Men are indued with *Understanding* and *Will*, which the Dike and the Water have not ; and therefore that is a Crime in Man, which is not so in the Sea and the Dike.

M. But I desire to know, whether that which God *does* or *permits* has such an *Efficacy*, that Men can no more

more *not fin* in Consequence of it, than the Water can refrain from flowing through the Breach which affords a free Passage?

N. That is what I mean.

M. Therefore, according to you, there is the same Relation between God and the Sins of Men, as there is between the Man who made a Breach in the Dike, and the Inundation which followed it.

N. There is, as to the Event, for both are equally *necessary*.

M. Then, according to our common Way of speaking, the Action of both may be expressed in the same Manner: That is, as the Man who broke down the Dike is properly said to be the *Cause* of the Damage done by the Inundation, because he did that which *necessarily* produced it; so God (according to your Doctrine) is the *Author*

ther of Sin, because he has put Men under a Necessity of sinning.

N. I cannot withstand the Force of your Reasoning ; I am now thoroughly sensible of the absurd Consequences of my Opinion.

To make the *Socratic* Way of disputing still better understood, let us consider another Example. Suppose *M.* would lead *N.* into the Belief of a future State of Rewards and Punishments, it might be done in the following easy Manner of Reasoning.

M. Did God make the World ?

N. Certainly he did.

M. Does God govern the World ?

N. As he made it, 'tis reasonable to suppose he governs it.

M. Is not God a good and righteous Governor ?

N. Doubtless he is.

M. What

M. What is the true Idea of a *good* and *righteous Governor*?

N. That he *punishes the Wicked, and rewards the Good.*

M. But are the Wicked always punished in this Life?

N. No, every one's Observation tells him the contrary; for the worst of Men are sometimes advanced to Riches and Honour, and have all the external Comforts that the World affords.

M. Are the Good always rewarded in this Life?

N. No certainly, for Poverty, Persecution, and various Kinds of Affliction, are often the Lot of the most virtuous Men.

M. How then does it appear that God is *good and righteous*?

N. I confess there is but little Appearance of it in the present State of Things.

M. Will

M. Will there not be a Time then when the Scene of Things will be changed, and God will make his Goodness and Righteousness in the Government of Mankind appear?

N. Undoubtedly such a Time will come.

M. But if this be not done before Death, how can it be done at all?

N. No other Way that I can think of, but by supposing Man to have some Existence after this Life.

M. Then you are convinced that there must be a State of Rewards and Punishments beyond the Grave?

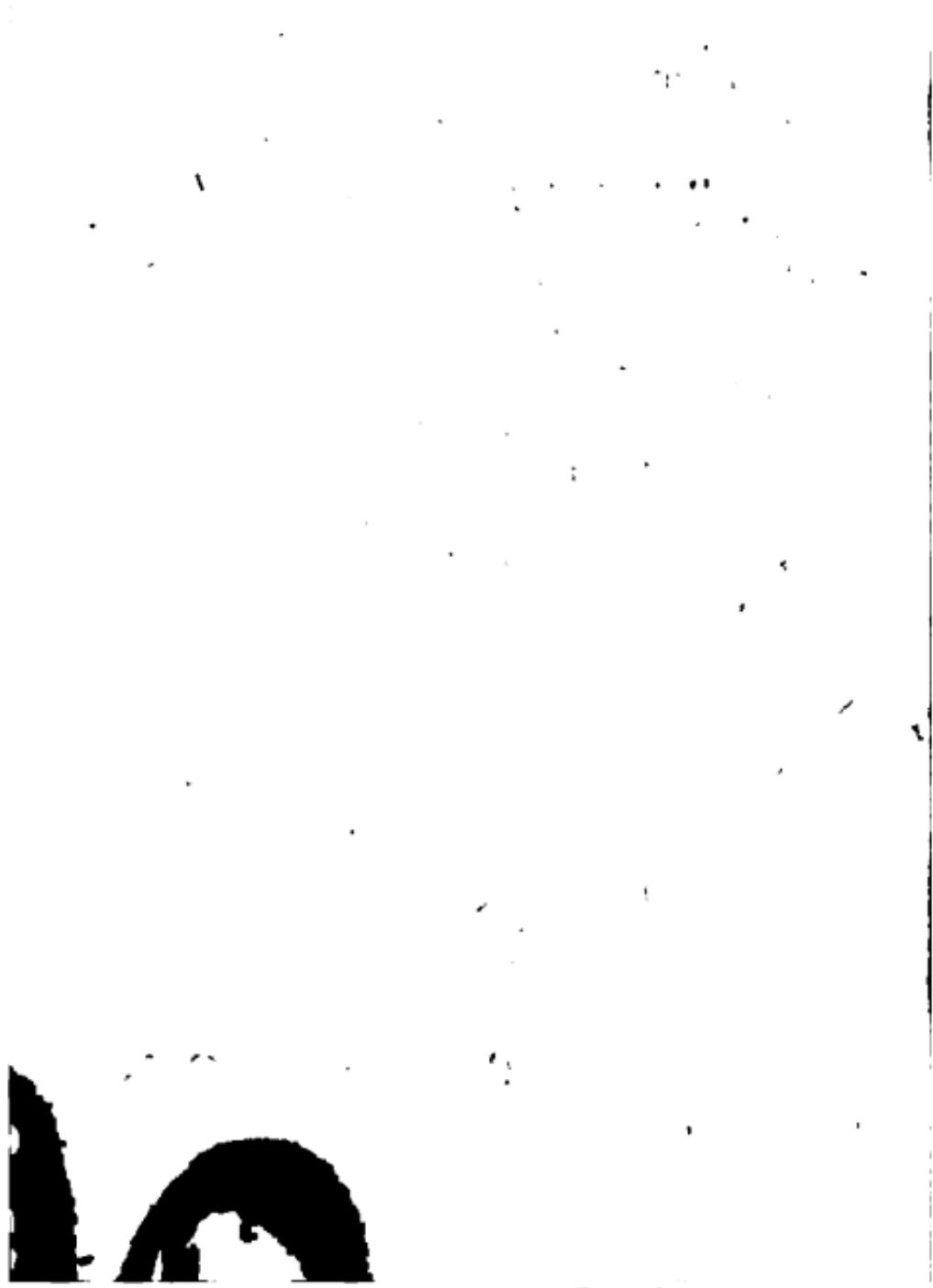
N. Yes, I am thoroughly persuaded of it; since the Goodness and Righteousness of God, as Governor of the World, cannot be made appear without it.

This

This Method of Reasoning; though it had been long neglected, is certainly a natural and pleasing Manner of Instruction, and is much more agreeable so that Candour and Sincerity which every honest Man ought to propose, than the *Art of Wrangling* which for several Ages prevailed in the Schoo's, and tended to overspread the Minds of Youth with Darkness and Uncertainty, and retard or mislead them in their Enquiries after Truth.

P

O N.



ONTOLOGY:

OR THE

Science of Being in general;

With its AFFECTIONS.

ONTOLOGY, OR METAPHYSICS.

CHAP. I.

*Of BEING and Not-BEING, and of
the Modes or Affections of Being in
general.*

Q. WHAT is ONTOLOGY?

A. It is a Science which
considers *Being* in general, its various
Modes or *Affections*, and its several
Kinds or *Divisions*.

P 3

Q. In

Q. In what Sense do you use the Word *Being*?

A. So as to conclude not only whatever is, but whatsoever can be.

Q. What is meant by *Not-being*?

A. If we consider it as excluding all Substances and Modes whatsoever, it is then *Nibility* or mere *Nothing*: But as it excludes particular Modes or Manners of Being, it may be considered either as a *Negation*, such is Deafness in a Stone; or as a *Privation*, such is Deafness in a Man.—

N. B. Pure *Nothing*, considered in itself, has neither Being nor Affections, and yet it is evident we can frame some Sort of Notion or Idea of it, since we can reason and discourse about it: But our Imagination now and then leads us to mistake *Nothing* for *Something*, as in the Case of *Darkness* or *Shadows*, which are only the Absence of

of Light ; and on the other hand we sometimes mistake *Something* for *Nothing*, as when we say *a Room has Nothing in it*, though it be *full of Light and Air*.

Q. What is meant by the *Affections* of Being ?

A. All the Properties, Powers, Accidents, Relations, Qualities, Adjuncts, Conditions, Circumstances, or Considerations of Being whatsoever ; that is, all the vast Variety of *Modes* which belong to Things, either as they are in themselves. or as they are related to other Things, or as they are represented by our Conceptions and Ideas.

Q. As the Affections of Being are so various, how are they best distinguished ?

A. The most general and extensive Distribution of them is into *absolute* and *relative*.

P 4

Q. What

Q. What do you understand by
absolute Affections?

A. Those which belong to every Being considered in itself; and these are *Nature* or *Essence*, and *Existence*; *Duration* and *Unity*; *Power* and *Act*,

Q. What are *relative Affections*?

A. Such as arise from the *Relations* in which different Beings stand to each other, or to some Part or Property of themselves: And these Relations may be subdivided into *real* and *mental*.

Q. Which are *real Relations*?

A. Those which are founded in the very Constitution of Things, and always subsist whether we think of them or not. Such are the Relations between a *Whole* and its *Parts*, *Cause* and *Effect*, and several others; of which more hereafter.

Q. Which are *mental Relations*?

A. Such

A. Such as do not arise from the Nature of Things themselves, but from the Manner in which the Mind thinks of them, and refers them to one another. Of this Kind are our *most abstracted Notions, Signs, Words, &c.* as will be explained by and by.

C H A P. II.

Of ESSENCE, or NATURE.

Q. **W**HAT is meant by that *absolute Affection of Being* called *Nature or Essence*?

A. It consists in an Union of all those Things, whether Substances, or Modes and Properties, which are necessary to make a Being what it is, Thus it is the Nature or Essence of *Grov^a*

with *Trees* : and of a *Triangle* to have three. Lines so joined as to make three Angles.

Q. Is the Essence of a Being so immutable, as that the least Alteration in it makes that Being *something else* than it was before ?

A. The Essences of *mathematical* Beings (which are only a Kind of abstract Ideas) are immutable ; for it is plain that the least Alteration in a *Triangle*, a *Square*, or a *Circle*, would make it lose its Nature, and cease to be that Figure. But the Essences of *natural* Beings, as well as *artificial*, are not so unchangeable ; for a *Tree* may still remain a *Tree*, though some of its Branches be lopped off ; and a *Door* is still a *Door*, whether it be painted blue or green. We may observe, however, that if the Alteration be

very

very great, it will be sometimes hard to say whether the Thing retains the same Essence, so as to deserve the same Name; for you may gradually lessen the Brims of a *Hat*, or cut it into such a Shape, till you will scarce know whether to call it a *Hat* or a *Cap*.

Q. Wherein does the Essence of every particular Kind of *Body* consist?

A. In *Matter* and *Form*.

Q. What is *Matter*?

A. It is that *solid extended Substance* of which *Bodies* are made, which seems to be uniform and the same in all?

Q. What is *Form*?

A. The Word includes all those *peculiar Qualities*, both real and sensible which make any particular *Body* be what it is, and distinguish it from all other *Bodies*.

Q. What

Q. What is the Difference between

real and *sensible* Qualities?

A. The Shape, Size, Situation, Motion and Rest of Bodies are called their *real* or *primary* Qualities, because they do and would belong to Bodies, whether there were any sensible Being to observe them or no: And from the different Combinations and Dispositions of these primary Qualities, arise the *Colour, Taste, Smell, Hardness, Cold, Heat, &c.* of Bodies, which are called *secondary* or *sensible* Qualities, as being Ideas or Modes, which we attribute to Things merely as they affect our Senses.

Q. Is there no Distinction made as to the Matter of Bodies?

A. Yes, the Matter of a Body is said to be either *proxime* or *remote*. Thus the *proxime* Matter of a Book is *Paper, Ink, and Covers*; but the *remote*

remote Matter is that whereof the Paper, Ink, and Covers are made.

Q. Is the Term *Nature* always taken in the same Sense as *Essence*?

A. No; by *Nature* is sometimes meant the eternal and unchangeable Reason of Things: Thus it is necessary, in the *Nature of Things*, that *three and three should make six*, and that a *Part should be less than the whole*. Sometimes this Term signifies the constant Course and Order of second Causes, and the Laws of Matter and Motion, which God the first Cause has established: And Things which go in this Course are said to be *according to Nature*; as the Production of *Grapes by a Vine*, the *Succession of Day and Night*, &c. But when Things deviate from this Course, they are said to be *beside Nature*, as *Monsters*; or *above Nature*, as *Miracles*; or *contrary to*

to Nature, as when the Stock of an Apple-Tree brings forth Pears by virtue of a Graft taken from a Pear-Tree.

C H A P. III.

Of EXISTENCE.

Q. **Y**OU mentioned *Existence* as an *absolute Affection of Being*: Pray how is it distinguished from *Essence*?

A. As the *actual Being* of a Thing is distinguished from its mere *Nature* considered as *possible*. What *really is in Being* has both *Essence* and *Existence*; what *possibly may be* can be said to have an *Essence only*.

Q. In what Sense is a Being said to be *possible*?

A. When the Ideas we form of such a *supposed Being* have no *Inconsistency*, but may be actually united, as a *Mountain*

Chain of Gold, or a River of Oil: But when the Ideas are inconsistent with each other, and cannot be united, such a Being is called an *Impossible*; as *cold Fire*, or *silent Thunder*.

Q. How are *Impossibles* distinguished?

A. Into four Kinds, *viz.* 1. Some Things are *metaphysically* or *absolutely impossible*, in the abstracted Reason and Nature of Things; as a *square Circle*, a *green Sound*, a *thinking Sign-Post*, or a *Busel of Sculs*. 2. Others are *physically* or *naturally impossible*, that is according to the present Laws of Nature; as a *Day in our Latitude thirty Hours long*, or *three Eclipses of the Sun in a Month*. Others are *morally impossible*, that is improbable in the highest Degree; as that *a Man should throw the same Number with three Dice a hundred Times successively*, or that an *Atheist should*

should be strictly virtuous. 4. Some Things are conditionally impossible, that is, made so by a certain Condition ; as that a Tree should bear Fruit supposing it has no Bloom.

Q. Is there any farther Distinction of Existence ?

A. Yes, Existence is said to be either *necessary* or *contingent*, *dependent* or *independent*.

Q. What is the Meaning of these Terms ?

A. Things which are because they *must be*, have a *necessary* Existence ; but those which *might not have been*, and may *cease to be*, have only a *contingent* Existence. A necessary Being is without a Cause, and *independent* ; but a contingent Being is the Effect of a Cause, and *dependent* thereon.

Q. To what Beings do these Ideas belong ?

A. In-

A. *Independence and Necessity of Existence*, taken in the highest Sense belong to God alone, whose Existence is *absolutely necessary*, and without any *pre-existent Cause*: But a Sort of *conditional Necessity* may be ascribed to Creatures; that is, such a Creature *must exist* if the Causes are put which will necessarily produce it; as, *if a Hen's Egg be hatched it will produce a Chick-en*.—Here it may be proper to observe, that Beings are said to be *necessary* or *contingent*, not only with regard to their *Existence*, but to the *Manner* of it also. God is necessary in this Respect, as well as in the other, and therefore he is *unchangeable*: But as to Creatures, their *Manner of Existence* is *contingent*, and therefore they are *changeable* Things.

Q. What Distinctions are made of *Necessity*?

Q.

A. It

A. It is distinguished into *natural*, *logical*, and *moral*. By *natural Necessity* Water congeals with Cold, and Ice melts with Heat. By *logical Necessity* a Conclusion flows from the Premisses of a Syllogism. By *moral Necessity* Virtue will be finally rewarded, and Vice punished; and it is morally necessary that intelligent Creatures should worship their Creator.—It is to be observed, that both *Necessity* and *Contingence* are frequently applied to Events in the *Natural World*; but those in the *Moral World* are usually called *contingent*, being voluntary Actions of intelligent Beings.

Q. How are *Necessity* and *Contingence* applied to the Events you speak of?

A. Events in the *natural World* are said to be *necessary* when they are derived from the Connection of second

cond Causes, and those Laws of Motion which God established at the Creation: But they are said to be *contingent*, or to arise from Chance, when they come unexpectedly, and are different from what is usual in the Course of Nature.

C H A P. IV.

Of DURATION.

Q. **W**HAT is meant by that absolute Affection of Being which is called *Duration*?

A. Nothing more than a Continuance in Being; and this is divided into *permanent* and *successive*.

Q. What is *permanent* Duration?

A. The State of Being (strictly speaking) belongs to God alone, and implies not only his Continuance in Existence,

Existence, but an universal and endless Possession of the same unchangeable Powers and Properties.

Q. What is *successive Duration*?

A. This belongs to Creatures, and implies the Continuance of the same Being, though its Modes, Powers, Properties, and Actions are successively changing.

Q. How can there be any *Duration* without *Succession*?

A. We cannot easily conceive how there should; but this Sort of Duration is God's *Eternity*, which has some Things in it above our narrow Conceptions.—It is *successive Duration* only that can properly be divided into *Past*, *Present*, and *Future*. The *Present*, in a strict Sense, is only the single Moment that *now* exists, and divides the Years or Ages past from those which are to come.

Q. Whence

Q. Whence have Creatures this Affection of Duration?

A. As Creation gives them Existence, so Conservation is said to give them Duration, i.e. a Continuance in Being. The latter is an Exercise of God's Almighty Power, as well as the former; and how far they differ, or whether they differ at all, is not our Business to enquire.

CHAP. V.

Of UNITY and UNION.

Q. WHAT is the Meaning of Unity, another absolute Affection of Being?

A. Unity is that whereby any Thing stands as it were alone in our Conceptions, and divided from every Thing else: And this Unity is either simple

Q. 3.

or

or compound ; for we say one Grove, as well as one Tree, and one Army, as well as one Soldier.

Q. What is *Union* ?

A. It is that whereby *two or more* Things either *really become one*, or are *considered as such* : And therefore Unions may be distinguished into *real* and *mental* :

Q. This is plain ; but is not *real Union* likewise distinguished into several Kinds ?

A. Yes ; it is either *natural* and *necessary*, as between a Tree and its Root ; or *accidental*, as when two Nuts grow together ; or *artificial*, as a Mixture of Wine and Water. — Again, *real Union* is considered as *corporeal*, *spiritual*, or *human*. By the first is meant the *Union of Bodies*, which is made by blending, compounding, fastening them together, or any

any other Means ; as *Drugs in a Compound Medicine*, a *Bundle of Sticks*, &c. *Spiritual Union*, or that of Minds, is either *intellectual* by mutual Consciousness of each other's Thoughts, or a Likeness of Sentiments, or it is *moral*, by mutual Love or Friendship ; or *supernatural*, as it may relate to God and Religion: *Human Union* is that of an animal Body with a Spirit to constitute a Man ; but how this Union is affected is entirely unknown to us, and must be resolved into the Appointment of the All-wise Creator.

Q. What is *mental Union* ?

A. It is when several Things, which are really distinct and different, are considered as *one*. Thus a vast Variety of Thoughts as well as Words may be considered as making up one Book or Treatise.

Q. 4 C H A P.

C H A P. VI.

Of Act and Power.

Q. Y O U mentioned two other absolute Affections of Being, called *Act* and *Power*; what is the Meaning of them?

A. *Act* and *Power* may be distinguished three Ways. 1. As *actual Being* is distinguished from *potential*, or a *Power to be*: Thus a House already built differs from a House which it is merely possible may be built one time or other. 2. As *actual Doing* or *Action* is distinguished from a *Power to do*: So the putting a Body in Motion differs from the Power of moving it. 3. As *actual Suffering* or *Passion* is distinguished from a *Power to suffer*: So the actual Motion of a Body is different from its Mobility or Power to be moved.

Q. In

Q. In what Sense do you here speak of *Action* and *Passion*?

A. By *Action* I mean the Exercise of a Power *to do*, and by *Passion* the Exercise of a Power *to suffer*: But let it be observed, that the Words *Passion* and *Suffering* are here used to signify merely the receiving the Act of the *Agent* or *Doer* by the *Patient* or *Sufferer*. When a Horse rubs himself against a Tree, the Horse is the *Agent*, and the Tree is the *Patient*; or when a Father loves his Son, the Father is the *Agent*, and the Son the *Patient*, in this philosophical Sense of the Words.

Q. Which are the most usual and proper Distinctions of *Action*?

A. *Action* is distinguished into *immanent* or *transient*, *natural* or *supernatural*, *voluntary* or *accidental*, *necessary* or *free*.

Q. What

Q. What is the Meaning of these Terms?

A. An *immanent Action* is that which continues in the Agent, being not directed to any other Object; as when a Man loves himself. *Transient Action* passes from the Agent to some other Object or Patient; as when a Man loves his Friend, or whips his Horse. Action is *natural*, as when a Fire melts Butter; or *supernatural*, as when the Prophet *Elisba* made Iron swim. When a Man drives a Nail with a Hammer it is a *voluntary Action*: but if he should miss the Nail and hit his Fingers, the Action would be *accidental*. Lastly, Action is *necessary*, as the Sun's enlightening the Earth; or *free*, as a Man can run or walk, sit or stand, dine at Twelve or Two, or not dine at all, just as he pleases.

Q. Are

Q. Are all human Actions free?

A. The *Will* is always free in choosing what it likes, or refusing what it dislikes; and so when a Man *wills* and pursues any supposed Pleasure or Happiness, he is said to do this *freely*, though indeed the *Action* is *necessary*, and he cannot do otherwise: Hence it appears, that *Necessity* is not universally and utterly inconsistent with *Freedom* and *Liberty*. But sometimes the *Liberty* of the *Will* is a *Liberty* of *chusing or refusing indifferently*, a *Freedom* or *Power* to chuse or not to chuse among two or more *Things* proposed: So a Man may chuse to walk abroad or stay at home, to speak or to be silent. This is *Liberty* in the most proper Sense, and is absolutely inconsistent with *Necessity*.

Q. Is there no Distinction of *Powers*; as well as of *Actions*?

A. Yes;

A. Yes; they are distinguished into several Kinds and Degrees. First, *Disposition* is reckoned an imperfect Power of performing any Thing, and the very lowest Degree: The next is *mere Ability*; and then a *Habit* of performing it with Ease and Certainty. — Some Powers are *corporeal*, as that of the Sun to warm the Earth; some *spiritual*, as meditating, reasoning; some *animal* Powers, as eating, waking, sleeping; some *human*, arising from the Union of Mind and Body, as Sensation and Imagination; some *vegetative*, as Nourishment and Growth. — Powers are also distinguished into *natural*, as that in a Man of forming a Voice; *acquired*, as Music; and *infused* as the Power which the Apostles had of speaking many Languages.

Q. Are not Powers frequently called by other Names?

A. Yes;

Q. Yes, those acquired by Exercise, are properly called *Habits*: The Powers of *natural Action* in Animals, and *artificial* in Men, as Walking, Dancing, &c. are called *Faculties*; and in all inanimate Beings they are termed *Principles*. The Powers of *moral Action* are also called *Principles* or *Habits*; as Justice, Temperance, &c.

C H A P. VII.

Of RELATIVE AFFECTIONS, or RELATIONS.

Q. **W**HAT have you farther to say concerning *relative Affections*?

A. It has been observed before, that they arise from the *Respect* or *Relation* that one Thing bears to another, or to some Part or Property of itself; and the same

same Relation is not confined to *two* Things, but may belong to *many*. *Greatness* and *Smallness*, *Paternity*, and *Sonship*, are relative Ideas.

Q. Is there no Distinction made between the Terms of a *Relation*?

A. Yes; the Subject of a Relation, or the Thing spoken of, is called the *Relate*; and the other Term to which the Subject relates, is called the *Correlate*. So if we speak of a *Husband*, he is the Subject or *Relate*, and the *Wife* is the *Correlate*; but if we are first speaking of the *Wife*, than she is the *Relate* or Subject, and the *Husband* is the *Correlate*.

Q. How many Kinds of Relations are there?

A. They have been already divided into *real* and *mental*, but there are some other Distinctions which it may be proper to mention. 1. They are

are *natural*; as the Relation between Father and Children, Root and Branches. 2. *Moral*, which are the Relations that the Actions of Men bear to a Law or Rule, either human or divine; and thus they are good or evil, lawful or unlawful. 3. *Voluntary*, or freely chosen; as between Friends, or Husband and Wife. 4. *Accidental*, as between Persons happening to become Neighbours, or between Trees growing in the same Grove. 5. *Reciprocal* or *synonymous*, that is of the same Name; as, Cousins, Partners, Schoolfellows, &c. 5. *Not-reciprocal*, or *heteronymous* that is, of a *different Name*; as Master and Scholar, Father and Son, King and Subjects.

Q. Which are the *real* Relations you propose to explain?

A. They are *Truth* and *Goodness*, *Whole* and *Part*, *Cause* and *Effect*, *Subject*

Subject and Object, Time and Part,
Agreement and Difference, Number and
Order; all which, as here enumerated,
shall be briefly considered.

CHAP. VIII.

Of TRUTH and GOODNESS.

Q. **W**HAT is meant by *Truth*?

A. The Word is used in various Senses; as, 1. A Being is said to be *metaphysically true*, when it is perfectly conformable to the Divine Intellect or Idea, which is the grand Pattern of all created Beings. 2. A Thing may be said to be *physically* or *naturally true*; as, that is *true Gold*, which has all the Properties requisite to its Nature. 3. There is *logical Truth*, as when Propositions are confor-

formable to the Things intended ; and this is the most usual Meaning of the Word, the Propositions themselves being frequently called *Truths* ; of which some are probable, some improbable ; some necessary, others contingent, &c.

4. There are also *ethical* or *moral* *Truths* ; which is when our Words and Actions agree with our Thoughts, and our Deeds with our Words : The first is called *Sincerity*, which is the Truth of the Heart ; the latter *Veracity*, which is the Truth of the Lips.

Q What is meant by *Goodness* ?

A. This is likewise distinguished into, 1. *Metaphysical* : as when Things are agreeable to the Will of God, and answer his Design : So he surveyed the Works of his Creation, and saw that they were *good*. 2: *Physical* or *natural*, when Things come up to a supposed Standard, or are capable of answering

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their natural End; so Air is *good*, when dure and fit for Breathing: And in this Sense *artificial* Things are also called *good*; as, a good *Sword*, a good *House*, a good *Watch*, &c. 3. Besides these there is *Moral Good*, which in general is the Conformity of our Thoughts, Words, and Actions to the Reason of Things, or the Law of God. When this regards our Neighbours or ourselves, it is called *Virtue*; but when it has a Regard to God, it is called *Religion*.

Q. Is *natural Good* never used in any other Sense than what you have mentioned?

A. Yes it is sometimes used (with respect to sensible or rational Beings only) to signify whatever is *pleasant*, or which tends to procure *Pleasure* or *Happiness*.

Q. What do Ontologists call the Union of *Truth* and *Goodness*?

A. They call it *Perfection*; so that when they are united in any Being, that Being is said to be *perfect*: By which is meant, that it contains all its essential Parts and Properties without Blemish, comes up to its Standard, and is capable of answering all the Ends for which Nature has designed it. Where any of these are wanting in any Degree, the Being is called *Imperfect*.

Q. Is not the Word *Perfection* used in different Senses?

A. Yes; *absolute Perfection* belongs to God alone. A Being may be called *perfect in its own Kind*, as a complete Circle or Triangle; or *comparatively*, as a Picture, which so perfectly resembles the Original that no Unlikeness can be discovered.—Again, a Being is perfect either as to *Parts*, or to *Degrees*: so a Colt is a perfect Horse with respect

spect to his Parts, but his Degrees of Growth, Strength, and Swiftness are imperfect. Or a Thing may be perfect as to *Quantity* and *Measure*, but imperfect in other Respects; so a Horse may be of full-grown Stature, but defective with regard to Beauty, Swiftness, or other *Powers* and *Qualities*.— Lastly, a Thing may be perfect with respect to *Essentials*, though not to *Circumstantials* also; as a Garden just laid out and planted may have all the *essential* Parts and Properties of a Garden, though it has not the *circumstantial* Perfection of Summer-Houses, Green-Houses, Water-Works, &c.—Sometimes the Word *perfect* is used for *excellent*; as when we say Men are more perfect than Brutes, and Spirits more perfect than Bodies.

C H A P.

Of the WHOLE and PARTS.

Q. **W**HAT is the Meaning of the Words *Whole* and *Part*?

A. A Being is called a *Whole*, when we consider it as made up of several *Parts* properly united: So that *Parts* are Beings, which joined together in a proper Manner constitute the *Whole*.

Q. Into how many Kjnds is *Whole* distinguished?

A. Into four, viz. *formal* or *metaphysical*, *essential* or *physical*, *integral* or *mathematical*, and *universal* or *logical*.

Q. What is a *formal* or *metaphysical* whole?

A. It is the *Definition* of a Thing; which consists of two Parts, the *Genus* and the *Difference*, that is, the *general* and

defined.

Q. What is an *essential* or *physical* Whole ?

A. It is applied to natural Beings, whose Essence is supposed to consist in *Matter* and *Form*. It is likewise usually made to signify the two *essential Parts* of *Man*, viz. *Body* and *Soul*. But in a larger Sense it may include the Substance of a Thing, with all its *essential Properties*.

Q. What is an *integral* or *mathematical* Whole ?

A. An *integral* Whole is when the several Parts of it have a proper Existence of their own, and are really distinct from one another: Thus the Body of a Man is an *integral* whole, consisting of Head, Limbs, and Trunk, all which have a real Existence in Nature, when separately considered. This is called a *mathematical*

mathematical Whole when applied to Number, Time, Dimension, or any Thing that has proper Quantity.

Q. What is an *universal* or *logical Whole*?

A. It a Genus including several Species, or a Species including several Individuals. Thus *Animal* is a *Whole* with respect to *Man, Beast, Bird*, and other Species, which are its Parts; and *Man* is a *Whole* with respect to *John, Thomas, William*, and the rest of its Individuals.

Q. Can these several Kinds of *Whole* be applied to *Spirits* as well as to *Bodies*?

A. Yes, except the *mathematical Kind*. For Instance: A *Spirit* is defined a *thinking Substance*, *Substance* is the *Genus*, and *Thinking* the *Difference*, which make up the *metaphysical Whole*. So *Perception, Judgment, Reason, &c.*

are the essential Parts of a
Spirit, which make it a *physical* or
material Whole. When we speak of a whole
Host of Angels, this is a Whole of
the *integral* Kind; and when we con-
sider Spirit as a Genus, and Human
Souls and Angels as the Species, that
is a logical or *universal* Whole.

Q. Is there any Distinction made of
Parts?

A. Yes, they are distinguished into
homogeneous, or of the same Kind; and
heterogeneous, or of different Kinds. Of
the first Sort are the Branches of a Tree
of the latter are the Parts of a House
which consist of Stone, Wood, Iron, &c

N. B. That which is a Whole in one
Sense may be a Part in another; as
whole. Page is a Part of a Book.—
Part of a Part is also a Part of the
Whole; as a Line is a Part of a Page.

C H A P

C H A P. X.

Of Causes and Effects.

Q. **W**HAT is the Meaning of *Cause* and *Effect*?

A. A *Cause* in general is a Principle distinct from the Thing produced, and has some real Influence on its Existence. An *Effect* is that which is produced, done, or obtained by the Influence of some other Being, which is called the *Cause*.

Q. Is a *Principle* and a *Cause* the same Thing?

A. Not always, though frequently, as will appear by considering the different Kinds of Principles. 1. There are Principles of *Essence* or *Existence*; of which some are *continent*, as Herbs, Metals, and Minerals, are the Principles of Medicine, for they contain the Salts, Oils, Spirits, &c. extracted from them.

ſtituent, as the Stones, Timber, &c. of which a Building consists: But this Sense of the Word *Principle* is not quite so proper as the former. Others are *causal*, and such are all the Causes hereafter enumerated. 2. There are Principles of *Knowledge*, which are either internal, as Reason; or *external*, as Books: And these are either *natural*, as Sense; or *supernatural*, as Inspiration. The Principles of Knowledge are also *simple*, as Ideas; or *complex*, as Propositions. 3. There are Principles of *Operation*; and these sometimes include the operating Beings themselves, as Painters, Warriors, &c. as well as their natural and moral Powers, and supernatural Influences.—But almost all Principles, except the *continent* and *conſtituent*, may be ranked amongſt Causes of one Kind or other,

Q. How

Q. How many *Kinds of Causes* are there?

A. The Distinctions of Causes are numerous; in general they may be divided as follows. 1. Into *universal* and *particular*: Thus the Sun, Earth, and Rain are the *universal* Causes of Plants, Herbs, and Flowers; but the Seeds of each are the *particular* Causes. 2. Into *remote* and *proxime*; as a Father is the *proxime* Cause of his Son, and a Grand-Father the *remote* Cause. 3. Causes are called *univocal* when they produce Effects of the same Nature with themselves, as when a Rabbit produces a Rabbit; or *equivocal*, when the Effect is of a different Nature, as as when a Man writes a Book, or makes a pair of Shoes. 4. Causes are *sole* or *solitary*, as when a Pestilence destroys a City; or *social*, as when it is plundered and burnt by an Army, consisting of Officers

Officers and Soldiers. *Total and particular* is a Distinction near akin to the former. 5. *Physical* Causes are those which work by natural Influence ; and *moral*, those which work by Persuasion. 6. Causes are *ordinary*, when they work according to the usual Course of Nature ; and *extraordinary*, when they are productive of Miracles.—Thus much for Causes in *general*.

Q. Which are the chief *particular* Kinds of Causes ?

A. Leaving out the common Distinction of *material* and *formal*, (since *Matter* and *Form* are not properly Causes) they may be distributed into four Kinds, viz. *emanative*, *efficient*, *instructive* and *suasive*.

Q. What is meant by an *emanative* Cause ?

A. It is that from which the Effect flows without any Action to produce it;

as

as Heat from Fire, a sweet Smell from Flowers, or Water, from a Spring.

Q. What is an *efficient Cause*?

A. It is that which produces the Effect by some Sort of *active Power* or *natural Agency*, and therefore most properly deserves the Name of a *Cause*; as when a Man rolls a great Stone down a Hill, and the Stone beats down a Wall; and the Wall kills a Cow or Horse that lay under it. Here are three distinct Causes, producing three distinct Effects.—But *efficient Causes* are divided into various Kinds. 1. They are either *first* or *second*; and a Cause may be *first absolutely*, which is applicable to God alone; or *first in its own Kinds* as a Gardener who plants Trees in his Garden is the *first Cause* of their Growth, and his under Agents are *second Causes*. 2. They are distinguished into *principal*, *less principal*, and

in-

instrumental. The Architect is the principal Cause of building a House ; the less principal are Bricklayers, Carpenters, &c. and the *instrumental* are Trowels, Hammers, Saws, Axes, &c. 3. Efficient Causes are *internal*, or *external*, which Words need no Explanation. 4. They may be *exciting* and *disposing*, as fine Fruit excites us to eat it ; or *compelling* and *constraining*, as when a Farrier gives a Horse a Drench. 5. A Cause is *forced*, as when a Man to avoid a mad Dog jumps into a Boat, and oversets it ; or *free*, as when a Man sinks a Vessel by boring Holes in the Bottom of it. 6. Efficient Causes may be *necessary*, as when a Fire burns a Child that falls into it ; or *contingent*, as when a Person is killed by a Tile falling from a House. 7. A Cause may be *accidental*, as the Breaking a Window by throwing a Stone at a Bird ; or *designing*,

designing, when the Mischief is done on purpose. 8. Causes may be *procuring* or *confirming*, *preventing* or *removing*: Thus Medicines confirm or procure Health, and prevent or remove Diseases. 9. *Creative*, *conservative*, *destructive*, and several other Distinctions of Causes need not be explained; their very Names describing them sufficiently.

Q. What is meant by an *instructive* Cause?

A. That which operates either by manifesting the Truth, or directing the Practice; and accordingly it may be called *manifestative* or *directive*. In the *Manifestation of Truth* this Cause is sometimes *silent*, as a Book, a Map, a Picture, &c. and sometimes *vocal*, as a Watchman tells us the Hour of the Night and a crowing Cock the Approach of the Morning. In the *Direction of Practice* this Cause is either a *Rule* teaching

teaching us how to act; or a *Pattern* for our Imitation; or it is a Goide in which both *Rule* and *Pattern* seem to be included:

Q: What do you mean by a *suasive* Cause?

A: It is something which works upon the Mind of a voluntary Agent, and inclines it to act; either by Entreaty or Authority, by Commands or Counsels, by Fear or Hope, or any other Motives. *Suasive* Causes are either *personal* or *real*: The *personal* are the Persuader, Encourager, Commander, &c. and the *real* are the End or Design, the Object; Opportunity, &c. In a Word; any Thing that tends to affect or persuade the Will may be properly called a *suasive* Cause.—Of this Sort of Causes the *End* or *Design* is reckoned one of the chief.

Q. What

Q. What Name is usually given to this last mentioned Cause?

A. It is commonly called the *final Cause*, by which is understood *that for the Sake whereof any Thing is done*. For Instance, a Man labours hard for a Livelihood; in this Case his Labour is called the *Means*, so that the End is the *Cause* and the *Means* the *Effect*. Victory and Peace are the *final Causes* of War.

Q. Are there not various Distinctions of *final Causes*?

A. Yes, but many of them are scarce worth mentioning. The principal seems to be the Distinction of an End into *ultimate* and *subordinate*: And an ultimate End is either *absolutely* so, as the Glory of God and their own Happiness should be the End of all our Actions; or it is *ultimate in its own Kind*, as Knowledge is the chief End of Reading. Subordinate Ends are such as tend

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to

to something farther ; as Knowledge is sought in order to Practice.

Q. Are there no other Kinds of Causes that are worth taking notice of ?

A. Yes, there are three, *viz.* a *deficient* Cause, a *permissive* Cause, and a *Condition* ; though these have obtained the Title of *Causes* for want of a fitter Name.

Q. What is meant by a *deficient* Cause ?

A. When the Effect is in a great Measure owing to the Absence of something that would have prevented it, the Cause is called *deficient* ; so that it may be reckoned a *negative* rather than a *positive* Cause. Thus the Want of Rain is the deficient Cause of the withering of the Grafs, and of the Dustiness of the Roads ; and a Leak is the deficient Cause of a Ship's sinking.

ing, or of Liquor's running out of a Vessel.

Q. What is the meaning of a *permis-
sive Cause* ?

A. A *permis-
sive Cause* is that which removes Obstructions, and lets the proper Causes operate ; And this Sort of Cause is either *natural* or *moral*. 1. A *natural permis-
sive Cause* removes natural Impediments ; so the opening of the Window Shutters is the Cause of Light's entering a Room, and the letting loose a Rope is the Cause of a Boat's running adrift. 2. A *moral permis-
sive Cause* removes moral Impediments or Prohibitions, and gives leave to act : Thus a Master is the *permis-
sive Cause* of his Servant's going to a Horse-Race, and so is a General of his soldiers plundering a City. The taking off an Embargo is the *permis-
sive Cause* of a Ship's

Sailing out of Port, which had been thereby detained.

Q. Why is a *Condition* ranked amongst these Causes?

A. Because it is a Sort of Cause ~~without which the Effect is not produced~~. It is generally applied to something which is requisite in order to the Effect, though it has no actual Influence in the Production of it. Thus Darkness is a Condition without which we cannot see the Stars; and a handsome Dress, and a Head uncovered, is a Condition of being admitted into the King's Presence.

C H A P. XI,

Of SUBJECT and ADJUNCT.

Q. **W**HAT is the Meaning of the next *real* Relations you mentioned, viz, *Subject* and *Adjunct*?

A. **W**hat

A. What has been said in the first Part of *Logic* (Chap. II.) where *Substances* and *Modes* are treated of, may be consulted, and need not be here repeated. In this Place the Word *Subject* is rather considered as having *accidental Modes*, than those which are *essential*; and these *accidental Modes*, or *external Additions* which adhere to the *Subject*, or *Names* and *Denominations* by which it is called, are what is here to be understood by *Adjuncts*.

Q. Which are the most considerable *Adjuncts* of Actions or Appearances?

A. They are what we call *Circumstances*, which include Time, Place, Light, Darkness, Cloathing, the Situation of other Things or Persons, with all the concomitant, antecedent, or consequent Events.

Q. Do not *Subject* and *Object* signify the same Thing?

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A. When

A. When we consider Things as the Subject of Occupation, Operation, Thought, or Discourse, they are then properly called *Objects*; as Leather is the *Subject* or *Object* on which a Shoemaker works, about which he is busied, or of which he thinks or discourses,

Q. Into what Kinds are *Objects* distinguished?

A. Into *immediate* and *remote*; as the Words and Sentences of a Book are the *immediate* Object of a Student's Occupation; and the Art, Science, or Doctrine taught by that Book is the *remote* Object. They are also distinguished into *common* and *proper*; as the Size, Figure, and Motion of Bodies are *common* Objects of the two different Senses of Sight and Feeling; But Colours are *proper* to the Sight only, and Cold to the Feeling. Lastly, they are either *material* or *formal*; as the Body

of

of a Man is the *material Object* both of *Physic* and *Anatomy*, and Dissection and Healing are the *formal Objects* of those two Sciences.

C H A P. XII.

Of TIME and PLACE.

Q. **W**HAT is meant by the Affections of *Time* and *Place*?

A. *Time*, as considered by Ontologists, is that Part of Duration which terminates the Interval or the Existence of Things, or it is what we call *successive Duration*. It is divided into *past*, *present*, and *future*, as has been before mentioned, and is usually measured by the Motion of some Bodies, which is supposed to be most regular, uniform, and certain. These are either the heavenly Bodies, as the Sun,

Moon, and Stars, which are *natural* Measures of Time ; or there are Hour-Glasses, Clocks, Watches, &c. which are *artificial* Measures. And thus Time is divided into Years, Months, Weeks, Days, Hours, Minutes, &c. and as it commonly refers to something that measures it, it is esteemed a *relative Affection*.

Q. What is meant by *Place* ?

A. It is the *Position* or *Situation of Bodies* ; and it is frequently distinguished into *absolute* and *relative*.

Q. What is *absolute Place* ?

A. It is that Part of the supposed infinite Void or Space which any Being fills up or possesses, considered simply in itself.

Q. What is *relative Place* ?

A. It is the Situation that any Being has with respect to other Bodies round about it, which are supposed quiescent, or

or at Rest.—We usually conceive of Things in this Manner: But if Space (as some Philosophers maintain) be only a Creature of Imagination, a mere *Nothing*, then all *Place* is properly *relative*, and if a Body existed alone it would have no Place at all.

Q. Is *Place* applied to *Spirits* as well as *Bodies*?

A. *Ubiquity* is a Term used to signify the Place of Spirits; though it must be confessed we have no clear Idea how they can have any proper Locality, Situation, Nearness, or Distance with respect to Bodies, without changing their very Nature, and making them quite other Beings than what they are. The *Ubiquity* of a Spirit, therefore, can only properly refer to such a Part of the material World, or which it has a more evident Consciousness, and on which it has a Power of acting. When we say that

where, we mean that he has an immediate and unlimited Consciousness of, and Agency upon all Things, and that his Knowledge and Power extend to all possible, as well as to all actual Beings; for he knows that he can do whatsoever can be known or done. When we say *the Soul of Man is in his Body*, we mean than he has a Consciousness of the Impressions made on the Body, and can excite particular Motions therein at Pleasure.—The Situation of Bodies in a certain Place is sometimes called a *circumscriptive* Presence; that of a Spirit by its Consciousness or Operation is termed a *definitive* or limited Presence; and the Omnipresence of GOD has been called his *repleteive* Presence, because he *fills Heaven and Earth*, as the Scripture expresses it.

C H A P.

Of AGREEMENT and DIFFERENCE.

Q. **W**HAT is meant by the Relations called *Agreement* and *Difference*?

A. The *Agreement* and *Difference* of Things are Words which need no Explanation. They are found out by comparing one Thing with another, or the same Thing with itself, at, different Times and Places, or under different Circumstances or Considerations.

Q. Into what Kinds is *Agreement* distinguished?

A. It is either *real*, that is, in Substance; or *modal*, i. e. in Modes, Properties, and Accidents; or *mental*, that is such as is made only by our Conceptions.—An Agreement in Essence, Quantity, or Quality, is called *internal*;

uncts, Names, or Circumstances, is called *external*.—Agreement is *total* and *perfect*, where there is no Difference at all ; or *partial* where there is a Difference in some Respect. An Agreement in Essence is called *Sameness* or *Identity*; but Agreement in Quality is properly called *Likeness*.

Q. Is not Agreement in Quantity sometimes called *Sameness* ?

A. Yes, but more properly *Equality* : So Five Shillings are said to be the *same* with a Crown, that is, *equal* to it, as containing the same Quantity of Silver. But sometimes an Agreement in Value arises from the Difference of Quality compensating the Defect of Quantity ; as a Guinea in Gold is equal to one and twenty Shillings in Silver.—Where there is not an *absolute Sameness* in *Quantity*, the Agreement is called

Proportion

Proportion: So there is a *Proportion* between Six and Twelve, for one is the half of the other ; and between three Fours and Twelve, for they are equal.

Q. In what farther Sense is the Word *Sameness* used ?

A. Two or more Things may be said to have the *same general Essence* or *Nature* ; as Beasts, Birds, and Fishes agree in this, that they are all Animals : Or they are said to have *the same special Nature* ; as Trout and Oysters agree in that they are Fishes. But *individual* or *numerical Sameness* of Nature or Essence can be ascribed to one and the same Thing only : as a Man of a hundred Years of Age is the same Individual that he was when a Boy of six, or a Youth of Twenty.—There is another Distinction of *Sameness* into *material* and *formal*. Tobacco is the same Body *materially* when it is dried and ground

ground into Snuff, as when it is green and growing in the Field ; but it is not formally the same.

Q. As *Sameness* bears different Sens-
ses, is not *Likeness* also distinguished into
several Kinds ?

A. Yes ; though *Likeness* or *Simili-
tude* is chiefly applied to Qualities, yet
it sometimes relates to Natures and Sub-
stances themselves ; and it may be either
total or *part. al.*—*Likeness* is also in the
same Kind, as one Egg is like another ;
or in a *different Kind*, as a Picture may
be like a Statue, or as Poesy resembles
Painting ; which last Sort is sometimes
called *Analogy*.

Q. Does not *Analogy* sometimes sig-
nify *Proportion* ?

A. Yes, and we get the Idea of it
by comparing two Quantities together,
and considering the Relation they bear
to each other. In a Word *Proportion*
includes

includes every Sort of Agreement in *Quantity*, (except individual Sameness) whether it be Time, Magnitude, or Number; and thence arises the Ideas of *equal* and *unequal*, *greater* and *less*, *more* or *fewer*, &c. *Proportion* may also be applied to any *Qualities* that admit of Degrees of Difference, as Whiteness, Sweetness, Cold, Heat, Good, Evil, &c.

Q. After thus explaining *Agreement*, what have you to say of *Difference*?

A. Let it be observed, that *Difference* is not here taken in a logical Sense for the primary *essential Mode* of any Being, which joined to the *Genus* makes a *Definition*; but it includes every *Distinction* of one *Thing* from another.

Q. Is not *Difference* divided into various Kinds?

A. Yes, it is either *real*, i. e. *substantial*, as one Substance differs from another; or *modal*, when it relates to *Modes*,

Modes, Properties, or Qualities ; or *mental*, when it is only made by the Mind.—*N. B.* The Difference between Modes or Properties is sometimes called *real*, because it is founded in the Nature of Things ; and so is opposed to *mental*, which is made only by our Conception.

Q. Are there no other Divisions of Difference?

A. Yes : *Difference* or *Disagreement* will admit of much the same Divisions as belong to *Agreement*, which therefore needs not be repeated.

Q. But is not the Disagreement of Things expressed by various Names?

A. Yes, a Disagreement in Substance or Essence is called *Diversity* ; in Quality, it is *Diffimilitude* ; and in Quantity it is opposed to *Sameness*, and is then peculiarly called *Difference*. As it stands opposed to *Proportion*, it is

is called *Disproportion*; that is, where there is no Proportion at all, as between *Finite* and *Infinite*? but the Word is frequently used in a more vulgar Sense, sometimes to signify any great Difference between two Quantities or Numbers, as one is *disproportionate* to ten Millions; and sometimes it means that one Part or Adjunct of a Thing is too large or too small for the others; as a Man's Mouth or Nose may be *disproportionate* to his Face.—The chief or highest Kind of Disagreement is called *Opposition*, and there are reckoned five Sorts of *Opposites*.

Q. Which are the Names of the Kinds of *Opposites*?

A. 1. Some are called *Disparates*, as Red, Blue, Yellow, &c, but these seem to be improperly reckoned *Opposites*, since they are only *differ in Species* under the *same Genus*. 2. Others are

T *relatives*

relative Opposites, as *Master* and *Servant*; but neither can all Relatives be properly called Opposites, as two Friends cannot who agree in their Humours and Sentiments. 3. Contraries are a proper Kind of Opposites, as *hot* and *cold*, *white* and *black*. 4. So are *privative* Opposites, as *Sight* and *Blindness*. 5. The last Kind are *negative* Opposites, or *Contradicities*; as *Honour* and *Dishonour*, *Perfection* and *Imperfection*.

N. B. Among Contradicities some are express, and others implied; as a *square Circle* is an express Contradiction, but a *religious Villain* is only an implicit one, meaning a Person who is religious in Words, but the reverse in Practice.—Observe also, that *Contraries* are called *mediate* when there is some middle Quantity or Medium which partakes of both the Extremes; as *luke-warm* between *hot* and *cold*: But where there

there is no such Medium they are termed *immediate*, as *living* and *dead*.

CHAP. XIV.

Of NUMBER and ORDER.

Q. **W**HAT is the meaning of *Number* and *Order*?

A. *Number* is a manner of Conception, whereby several distinct and separate Things are reckoned together, and considered, as *more* or *fewer*.

Q. Is not an *Unit* or *One* a Number?

A. It is rather *Parts of a Number*; for *Number* is made up of many *Units* put together; and therefore *Number* is a *real Relative Affection* of *Being*, as it plainly denotes a Relation between two or more Beings or Ideas.—*Number* is called *discrete Quantity*, because its *Parts* are *distinct*; as *Magnitude* is called

ed continued Quantity, because its Parts are united.

Q. What is meant by *Order*?

A. Our Idea of *Order* arises from considering one Thing as being *before*, *together*, *with*, or *after* another; according to which it is said to be *prior*, *simultaneous*, or *posterior*.

Q. Into how many Kinds is *Order* distinguished?

A. Into five, viz. 1. The *Order of Nature*, as a Father is before his Son. 2. Of *Time*, as the Spring is before the Summer. 3. Of *Place*, as the Horse before the Cart. 4. Of *Dignity*, as a Duke is before an Earl. 5. Of *Knowledge*, as we learn Letters before Syllables, and Syllables before Words.

Note; Things are said to be *together in Time*, either when they begin together, as Fire and Heat; or when they co-exist with each other during some

Part

Part of their Life, Time, or Beings; as Socrates and Plato are said to be ~~Contemporaries~~, though the former was born many Years before the latter.

C H A P. XV.

Of MENTAL RELATIONS.

Q. **Y**OU have now gone through the *real* Relation of Being; what have you to say concerning those that are *mental*?

A. It has been already observed, that *mental Relations* have no Foundation in the Nature of Things themselves, but arise merely from the Manner of conceiving them. These Relations therefore may be known by this Consideration, but if there were no intelligent Beings to conceive of them, such Relations could never have existed.

T 3 Q. Which

Q. Which are the chief Kinds of mental Relations?

A. They are *pure abstracted Notions, Signs, Words, Terms of Art, and external Denominations.*

Q. What do you mean by *pure abstracted Notions?*

A. They are what Ontologists call *second Notions, second Intentions, mere Creatures of the Mind*: But observe, it is not every Degree of *Abstraction* that makes a *mental Relation*. If we abstract the common Idea of a *Man* or *Humanity* from the particular Ideas that distinguish *Thomas* and *Francis*, this is an *abstract Idea*; though it is not a mere *mental Relation*, because it is Part of the *real and absolute Idea of Thomas or Francis*: But if we abstract this common Idea of *Humanity* yet farther, by considering it as *special Nature agreeing to several Individuals*, and so call it

it a *Species*; this is a *mental Relation*; and so is the abstract Idea of *Animal* called a *Genus*. These and the like Ideas are formed by a *second Abstraction* and may therefore be called *pure abstracted Notions*; which, having no Reality or Existence in Things themselves, are properly termed *merely mental Relations*.

Q. What is meant by *Signs*?

A. A *Sign* is that which represents to the Mind something besides itself, which is called the *Thing signified*.

Q. Are there not various Kinds of *Signs*?

A. Yes, the chief of which are the following. 1. Signs are *natural* as a Beard is of Manhood; or *instituted*, as Baptism of washing away Sin, or as a Constable's Staff is a Sign of his Office. 2. Some are mere *Tokens* or *Pledges*, which do not at all represent the Thing signified, as the Rainbow is a Token to assure

assure us that the Earth shall not be drowned again. 3. Signs are *antecedent*, as the gathering of the Clouds is of approaching Rain; or *concomitant*, as Shivering is of an Ague; or *consequent*, as a Funeral is of Death. 4. Another Distinction of Signs near akin to the former is into *prognostic*, as a Hiccup with an intermitting Pulse are Prognostics of Death; *memorial*, as a Funeral Ring is of a Friend deceased; and *commemorative*, as a Tomb is of a Person buried there. Signs are sometimes *necessary* and *certain*, as the Morning-Star is of the Rising of the Sun; and sometimes *contingent*, or *probable*, as Prudence and Industry are the probable Signs of a Man's thriving in this World.

Q. Are not *Words* called *Signs*?

A. Yes, and they may be reckoned the chief Kind of all, as they are the most

most universal Signs of our Thoughts or Ideas. But though all Words and Names are Signs invented by the *Mind*, and signify Things from mere *Appointment* and *Agreement of Men*, and are therefore *mental Relations*; yet those are more eminently so which are called *external Denominations*, that is, Names given to Things, upon account of some Idea which the Mind affixes to them, rather than that of any Thing that really belongs to them; as if we say such a Building stands on the *right* or the *left* Side of the Road, these are *outward Denominations*, which depend on turning one's Face this way or that.—Of this Kind are *technical Words*, or *Terms of Art*, which are used to signify the Manner of our Conception of Things; as if I say, *a Hawk is a Species of Birds*, the Word *Species* is a *Logical Term of Art*, and may be called a *mental Relation*.

N. B.

N. B. Besides these already mentioned, there are various Symbolical Signs and Representations of Things invented and used by Artists; as the Characters of Algebra, Music, &c.

C H A P. XVI.

Of the chief Kinds of BEING.

Q. **I**NTO how many Kinds is *Being* usually distinguished?

A. Into *Substances* or *Modes*; *finite* or *infinite*; and *natural*, *artificial*, or *moral*.

Q. What Sorts of Beings are called *Substances*, and what *Modes*?

A. Every Being that may be considered as subsisting of itself, is called *Substance*; as an *Angel*, a *Man*, a *Horse*, a *Tree*, a *Stone*, an *Apple*: But when we consider it as subsisting by means of some other Being to which

it belongs, it is then called a *Mode* ; as Length, Colour, Shape, Wisdom, Roughness, Smoothness, &c.

Q. Can *Modes* be properly called *Beings* ?

A. When we give them that Name, we only mean that they have a *real Existence* in Nature ; though this indeed is denied by some Philosophers, who from thence are called *Nominalists*, as those who maintain the contrary Opinion are called *Realists*. It must be granted, however, that *Being* does not belong to *Modes* in so full and strong a Sense as it does to *Substances*.

Q. How many Kinds of *Substances* are there ?

A. Only two that we know of, viz. *Material* and *Intelligent* ; that is, either *Bodies* or *Spirits* : But the Substance of *Spirits* is of so fine and subtle a Texture, as not to be the Object of our *Senses*.

Q. How

Q. How many Kinds of Modes are there?

A. They are distributed into various Kinds, the chief whereof have been enumerated and explained in *Logic*, (Part 1. Chap. 2.) to which we refer the Reader.

C H A P. XVII.

Of Finite and Infinite Beings.

Q. **W**HAT is meant by the next Distinction of Beings into finite and infinite?

A. *Finite Beings* are those which are limited or bounded, either with respect to their Natures, Parts, Quantity, Qualities, Powers or Duration: But those are *infinite* which are unlimited, or have no Bounds.

Q. Are all Substances either finite or infinite?

A. Yes,

A. Yes, either in respect to their *Quantity* or of their *Powers*. Created *Spirits* are said to be *finites*, as well as *Bodies*; but as to *Quantity*, for we have no Idea of their Dimensions; but as to their *Qualities*, their *Knowledge*, their *Goodness*, and all their *Operations*. They are allowed, however, to have an unlimited Duration with regard to the Future, though not with regard to the Past; that is, they may have no *End*, though they had a *Beginning*: And this Duration is usually called *Immortality*.—We commonly call *Space* infinite, which some Philosophers will not allow, making it mere *Nibility*, or the Limit of *Existence*, as *Existence* may be said to limit *Nihility*.

Q. Are all *Modes* either *finite* or *infinite*?

A. No some cannot be called either; for tho' we can say *finite* or *infinite* *Knowledge*, *Patience*, *Length*, *Breadth*,

Sc. yet we cannot say a finite or infinite Colour, Roughness, &c.

Q. How is God said to be infinite?
A. With respect to his *Essence*, his *Duration*, or his *Attributes*. The Infinity of his Essence in his *Imminence* or *Omnipresence*: The Infinity of his Duration is his *Eternity*, without Beginning and without End: The Infinity of his Attributes implies that his Knowledge, Power, Holiness, Goodness, &c. are infinite; that is, every way perfect in the most absolute Sense.

N. B. There is no Medium between *Finite* and *Infinite*: for what we call *Indefinite* is only that of which we know not the Limits.

C H A P XVIII,

Of NATURAL, ARTIFICIAL, and MORAL BEINGS.

Q. In the last place you distinguished Beings into natural, moral, and

artificial; what is the Meaning of those Words.

A. *Natural Beings* are those which have a real and proper Existence, and are considered as formed and appointed by God the *Creator*; as Spirits, Bodies, Men, Beasts, Birds, Fire, Air, Water, Light, Sense, Reason, &c. For though some of these are produced by others, as Animals produce their own Species, yet God is properly the Author of them all, either immediately, or by the Laws of Nature he has ordained.

Q. Which are *artificial* Beings?

A. Those which are made by the Skill, Contrivance, and Operations of Men; as Houses, Pictures, Garments, Paper, Propositions, Arguments, Sciences, Books, &c.

Q. Which do you call *moral* Beings?

A. Those

A. Those which relate to the *Manner, Conduct, and Government* of intelligent Creatures, endued with Freedom of Will, and under Obligations to particular Actions of Duty. Thus Law, Virtue, Vice, Sin, Righteousness, Justice, Injustice, Reward, Punishment, &c. are called *moral* Beings; but under this Consideration they are only *moral*.—In this Manner new Names might be given to different Beings, by calling them *political, mathematical, theological, medicinal*, &c. as they are treated of in the several Sciences: But these had better be called *different Ideas* than *Beings*; as Rebellion, Allegiance, Treason, &c. are *political Ideas*; Length, Breadth, &c. are *mathematical*; and Holiness, Repentance, Salvation, &c. are *theological*.

F I N I S.

THE GORDON LESTER FORD
COLLECTION
FROM EMILY E. F. SKEEL
IN MEMORY OF
ROSWELL SKEEL, JR.
AND THEIR FOUR PARENTS

